VIII/5

REPORT

ON

LABOUR IMMIGRATION INTO ASSAM

FOR THE YEAR

1891.

VIII/5

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REPORT ON LABOUR IMMIGRATION INTO ASSAM FOR THE YEAR 1891.

CHAPTER I.

IMMIGRATION.

1. The following table compares the immigration of all classes of labourers into the province during the past two years:

Provincial figures.

		1890.	1891.	Increase or decrease.	Percentage of increase or decrease.
Act ...	Sardári adults ...	7,291	9,241	+1,950	+26·7
	Contractors' adults ..	10,082	16,071	+5,989	+59·4
Non-Act...	Adults ...	8,832	12,627	+3,795	+42·9
Total		26,205	37,939	+11,734	+44·7
Children		9,875	11,969	+2,094	+21·2
Grand total, including children...		36,080	49,908	+13,828	+38·3

The year under report was thus characterised by a considerable increase in immigration under all classes of immigrants, the increase being especially marked in the case of adult labourers imported through the agency of contractors. Various explanations are offered in the district reports of the increased immigration, the explanations relating either to the conditions which prevailed in the labour districts, such as extensions of cultivation, or a further appreciation on the part of managers of the benefit of an adequate labour force, or to the circumstances which prevailed during the year in some of the districts of recruitment. Speaking generally, however, and although no doubt the increased immigration is partly to be accounted for by extensions of cultivation on tea gardens in the province, the Chief Commissioner would attribute the result rather to the abnormally small importations of the previous year. The totals under each head for each of the past five years were as follows:

	1887.	1888.	1889.	1890.	1891.
Act adults	21,639	22,601	24,799	17,373	25,312
Non-Act adults	7,451	10,716	12,749	8,832	12,627
Total of Act and non-Act adults	29,090	33,317	37,548	26,205	37,939
Children	7,373	12,976	18,110	9,875	11,969
Grand total, including children	36,463	46,293	55,658	36,080	49,908

A

It will thus be seen that the number of Act adults imported during the year under report was larger than the corresponding figures for any of the previous four years, and that this was also the case with regard to non-Act adults if the comparison is made with any of the previous four years except 1889. The number of children imported shows a considerable increase over the previous year, but was less than the corresponding figures for either of the years 1888 or 1889.

2. The following table gives the statistics of importations for each district of the province separately :

District and valley statistics.

District	Act adults.			Non-Act adults			Total of Act and non-Act adults			Children			Grand total, including children.		
	1890	1891	Percentage of increase or decrease.	1890	1891	Percentage of increase or decrease	1890	1891	Percentage of increase or decrease.	1890	1891	Percentage of increase or decrease.	1890	1891.	Percentage of increase or decrease
Cachar ..	1,382	2,396	+73 37	1,450	2,393	+65 03	2,832	4,789	+69 10	591	736	+24 53	3,423	5,525	+61 40
Sylhet .	702	486	−30 76	4,301	7,567	+75·93	5,003	8,053	+60 96	3,103	3,891	+25 39	8,106	11,944	+47 34
Total Surma Valley	2,084	2,882	+38 29	5,751	9,960	+73 18	7,835	12,842	+63 90	3,694	4,627	+25 25	11,529	17,469	+51 52
Kámrúp ..	227	367	+61 67	11	156	+1,318 18	238	523	+119 74	17	179	+952 94	255	702	+175 29
Darrang	2,738	4,932	+80 46	354	292	−17 51	3,087	5,224	+69·22	1,176	1,837	+56 20	4,263	7,061	+65 68
Nowgong ..	931	1,017	+ 9 23	1,062	685	−35 49	1,993	1,702	−14 60	425	492	+15 76	2,418	2,194	−9·26
Sibságar .	4,961	6,489	+30 80	423	458	+8 27	5,384	6,947	+29·03	2,263	2,405	+6 27	7,647	9,352	+22 3
Lakhimpur ..	6,437	9,625	+49 52	1,231	1,076	−12 59	7,668	10,701	+39 42	2,300	2,429	+5 60	9,968	13,130	+31 72
Total Assam Valley	15,289	22,430	+46 70	3,081	2,667	−13 43	18,370	25,097	+36 61	6,181	7,342	+18 78	24,551	32,439	+32 12
Grand total .	17,373	25,312	+45 69	8,832	12,627	+42·96	26,205	37,939	+44 77	9,875	11,969	+21·20	36,080	49,908	+38 32

These figures show that the increase under the head of Act adults was common to all districts of the province except Sylhet, where the decrease was due to a falling off under the head of labourers recruited through the agency of sardárs (from 653 in the previous year to 410, or by 37·21 per cent.). Under the head of non-Act adults a considerable increase took place in both of the districts in the Surma Valley, while a decrease is apparent in the case of all districts of the Assam Valley except Kámrúp and Sibságar. As above stated, the Chief Commissioner believes these results, so far as Act importations generally and non-Act importations in the Surma Valley are concerned, to be largely due to the fact that the amount of labour imported during the preceding year was abnormally small, but there is no doubt that they are also partly to be ascribed to the opening out of new gardens and to extensions of existing gardens within the province. Such extensions are especially noticed in the reports received from Cachar, Sylhet, and Darrang. In Sylhet the Deputy Commissioner refers to extensions of cultivation in the South Sylhet and Karimganj subdivisions, and the Deputy Commissioner of Darrang mentions the fact that several gardens are being opened out in the northern part of the sadr subdivision. In the Kámrúp district, the large proportionate increase which occurred is ascribed to the starting of work on the Bengal-Assam Railway, managers having imported more largely with the object of taking up railway contracts.

3. The following tabular statement distributes the adult immigrants according to their sex between the various localities of recruitment :

Nationality of immigrants

Nationality of immigrants		Act. Garden Sardárs. 1890.	Act. Garden Sardárs. 1891.	Act. Contractors 1890	Act. Contractors 1891.	Non-Act. 1890.	Non-Act. 1891.	Total 1890.	Total 1891.
1		2	3	4	5	6	7	8	9
Bengal	Men ...	439	657	848	1,123	555	579	1,842	2,359
	Women...	366	587	814	1,235	453	619	1,633	2,441
Total		805	1,244	1,662	2,358	1,008	1,198	3,475	4,800
North-Western Provinces and Oudh	Men ...	678	750	767	1,272	2,010	3,616	3,455	5,638
	Women...	473	392	549	1,107	1,605	3,387	2,627	4,886
Total		1,151	1,142	1,316	2,379	3,615	7,003	6,082*	10,524
Behar	Men ...	.....	711	.....	620	.....	545	.....	1,876
	Women...	.....	465	.....	481	.....	399	.....	1,345
Total		.....	1,176	.....	1,101	.....	944	.....	3 221
Chota Nagpur ...	Men ...	2,561	2,467	3,308	4,919	1,017	1,502	6,886	8,888
	Women...	2,489	2,259	2,843	4,425	944	985	6,276	7,669
Total		5,050	4,726	6,151	9,344	1,961	2,487	13,162	16,557
Nepal	Men ...	1	13	16	90	10	6	27	109
	Women...	1	34	.....	26	12	4	13	64
Total		2	47	16	116	22	10	40	173
Madras	Men ...	158	483	552	439	345	209	1,055	1,131
	Women...	102	379	355	312	383	196	840	887
Total		260	862	907	751	728	405	1,895	2,018
Bombay	Men ...	2	18	1	12	2	10	5	40
	Women...	2	12	.....	9	3	6	5	27
Total		4	30	1	21	5	16	10	67
Assam	Men ...	.....	.....	15	1	1,393	505	1,408	506
	Women...	.....	.....	14	.....	61	58	75	58
Total		.....	.....	29	1	1,454	563	1,483	564
Orissa	Men ...	10	8	.....	.....	24	1	34	9
	Women...	9	6	.....	.....	15	.....	24	6
Total		19	14	.....	.....	39	1	58	15
Total	Men ...	3,849	5,107	5,507	8,476	5,356	6,973	14,712	20,556
	Women...	3,442	4,134	4,575	7,595	3,476	5,654	11,493	17,383
Grand total...		7,291	9,241	10,082	16,071	8,832	12,627	26,205	37,939

This statement, in which the statistics for the North-Western Provinces and Oudh and for Behar are for the first time separately given, shows greater activity of recruitment in all cases except under Assam and Orissa, the increase under the North-Western Provinces and Oudh and under Chota Nagpur being especially marked. In regard to the classification of immigrants, the Deputy Commissioner of Darrang writes :

I doubt if more than half of the people described as Chota Nagpur coolies really come from the Chota Nagpur division. It is a common practice for recruiters to *chalan* coolies from Banda and Basti, from Jaunpur, Ghazipur to Purulia, where they are put under contract as junglis. I have come across several instances of this form of swindling, and have reported two very glaring cases, which resulted in excessive mortality, to the Chief Commissioner.

The particular instances referred to in the above extract were referred by the Chief Commissioner to the Bengal Government, with the remark that, assuming the circumstances to be as represented, a case seemed to have been made out for cancelling the license of the contractors concerned on the ground of misconduct. A careful enquiry was made into the matter by the Superintendent of Emigration at Calcutta, with the result that the contractor was shown to have declined to undertake any responsibility in connection with the castes and

* Includes figures for Behar also.

districts of the coolies at the time he agreed to supply them, and to have invited personal inspection and selection of the coolies by the firms which required them In one case the obvious precaution of inspecting the coolies before despatch was not taken by or on behalf of the firms concerned while in another the coolies were despatched after selection by an agent of the firm. Under these circumstances, the Bengal Government decided that no action on the part of Government was necessary or possible. There can be no doubt that this decision was correct, but the Chief Commissioner must confess that he is unable to understand why the agents in such cases do not take the necessary steps to satisfy themselves that the article which they want, and not an altogether different one, is supplied before delivery is accepted. The following tables show the relative order in which each locality of recruitment stands in respect of Act and non-Act importations :

(*a*) *Act Importations.*

Locality of recruitment.	Recruited by		Total number of labourers imported during 1891.
	Garden sardárs.	Contractors.	
(1) Chota Nagpur	4,726	9,344	14,070
(2) Bengal	1,244	2,358	3,602
(3) North-Western Provinces and Oudh	1,142	2,379	3,521
(4) Behar	1,176	1,101	2,277

(*b*) *Non-Act Importations.*

	Number of labourers imported.
(1) North-Western Provinces and Oudh	7,003
(2) Chota Nagpur	2,487
(3) Bengal	1,198
(4) Behar	944

The large increase which took place during the year under report in the number of non-Act importations from the North-Western Provinces and Oudh (from 3,615 in the previous year, including Behar, to 7,003) is noteworthy.

Female immigrants.

4. The proportion of women amongst adult immigrants from the chief localities of recruitment is given below :

Locality of recruitment.	Percentage of women to men among							
	Sardári immigrants.		Contractors' immigrants.		Non-Act immigrants.		All adult immigrants.	
	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.
Bengal	45·4	47·2	48·9	52·3	44·9	51·6	46·9	50·8
North-Western Provinces and Oudh ...	41·1	34·3	41·7	46·5	44·3	48·3	43·1	46·4
Behar	...	39·5	...	43·6	...	42·2	...	41·7
Chota Nagpur...	49·2	47·7	46·2	47·3	48·1	39·6	47·6	46·3
Total	47·2	44·7	45·3	47·2	39·3	44·7	43·8	45·8

The unsatisfactory features in this return are the falling off in the percentage of women in the case of sardári immigrants from the North-Western Provinces and Oudh and from Chota Nagpur. Under the head of contractors' immigrants and non-Act immigrants (except in the case of Chota Nagpur) the figures show improvement in all cases.

Contractors' and sardári coolies.

5. The following table gives the number of Act coolies imported during the past two years into each district, and shows the average number imported by each sardár :

District.	Sardári coolies.		Number of certificates granted to garden sardárs.		Average recruits per sardár.		Contractors' coolies.		Percentage of increase or decrease of importations during 1891, as compared with 1890	
	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	Sardári.	Contractors.
Cachar	862	1,520	480	598	1·7	2·5	520	876	+76·3	+ 68·4
Sylhet...	653	410	241	288	2·7	1·4	49	76	—37·2	+ 55·1
Total Surma Valley ...	1,515	1,930	721	886	2·1	2·1	569	952	+27·3	+ 67·3
Kámrúp	141	173	48	48	2·9	3·6	86	194	+22·6	+125·5
Darrang	829	1,628	672	459	1·2	3·5	1,904	3,304	+96·3	+ 73·5
Nowgong	491	524	226	220	2·1	2·3	440	493	+ 6·7	+ 12·0
Sibságar	2,314	2,499	898	978	2·5	2·5	2,647	3,990	+ 7·9	+ 50·7
Lakhimpur	2,001	2,487	642	819	3·1	3·0	4,436	7,138	+24·2	+ 60·9
Total Assam Valley ...	5,776	7,311	2,486	2,524	2·3	2·8	9,513	15,119	+26·5	+ 58·9
Grand total	7,291	9,241	3,207	3,410	2·2	2·7	10,082	16,071	+26·7	+ 59·4

The only district which shows a decrease in the number of sardári coolies imported is Sylhet, but it has to be remembered in this connection that the free system is largely resorted to in that district. The number of certificates granted to garden sardárs increased in every district except Kámrúp, Darrang, and Nowgong, and the average recruits per sardár increased in Cachar, Kámrúp, Darrang, and Nowgong, while it decreased in Sylhet and Lakhimpur, and in Sibságar it stood at the same figure as in the previous year. The number of contractors' coolies imported during the year increased in every district. In the case of all districts except Cachar and Darrang the proportionate increase in the case of contractors' coolies imported during the year was greater than that of sardári coolies. The number of sardárs' certificates, which provided for the medical examination of labourers prior to engagement, was 1,330, against 1,177 in the previous year.

Cost of importation.

6. There is no new information to be recorded under this head.

Transit of immigrants to the Assam Valley.

7. During the year under report 20,319 immigrants started from the recruiting districts for Assam, against 17,199 in the previous year, showing an increase of 3,120. The casualties *en route* to Dhubri, that is, the number of coolies who died or absconded, were returned by the depôt managers as 2 only (1 died and 1 absconded), against 46 (8 died and 38 absconded) in the previous year. Detentions *en route* were returned as 4 only, against 51 in the previous year, but the accuracy of these figures may be open to doubt. The preference shown for the Goalundo over the Kaunia route continues, 12,451 out of the 20,313 immigrants, who arrived at Dhubri during the year under report, having adopted the former route. Of the total number of immigrants who arrived at Dhubri, 1,668 were recruited by licensed sardárs, and the remainder (18,645) came up under the free system. Of these latter, 109 passed as free immigrants, and of the balance, 13,900 were put under contract and 4,636 were passed as dependents attached to them. The Civil Surgeon examined 13,648 immigrants (against 8,647 in the previous year) before they were placed under contract, of whom 12,930 were passed, and 718 (against 510 in the previous year) were rejected. Of those rejected, 250 were sent on as dependents and 143 as free by the depôt managers, 314 (against 136 in the previous year) were returned to their homes by the depôt managers, and 11 (against 40 in the previous year) were returned to their homes by the Civil Surgeon. There is no doubt that the Civil Surgeon exercises great care and strictness in his examination of the immigrants, and no complaints were received from garden managers of unfit persons having been sent up on contract. As regards the Dhubri system generally, the Deputy Commissioner remarks :

> The system of putting coolies on contract at Dhubri remains as before, and every possible care is taken to see that no coolie goes up without having his contract especially explained to him individually. Even after the coolie has executed his contract here, if he objects to proceed, his contract is cancelled, and he is next day returned at the contractor's expense to where he came from. In this the several depôt managers give us loyal support. It is evidently quite understood by every one concerned in immigration here that it is to the interest of us all to see that no coolies are sent up against their wishes. It seems to me to be one of the advantages of the Dhubri system that the coolie has this chance of coming so far, and then, if he likes, refusing to go on further and being sent back at the contractor's expense.

The Dhubri depôts were inspected during the year by the Commissioner, who observes :

I was present while immigrants were put on contract at three depôts. If the care taken in my presence to explain the meaning of the contract is always exercised, it is impossible that any immigrant can be unaware of what he is doing, or can be subject to compulsion. In the case of women unaccompanied by their husbands, the questions are specially searching.

Transit of immigrants to the Surma Valley.

8 The Deputy Commissioner of Cachar reports that out of 3,348 immigrants despatched from Goalundo in 236 batches, 62 batches, comprising 1,052 coolies, were forwarded direct by steamer, and 174 batches with 2,296 coolies were forwarded as far as Fenchuganj by steamer, and thence by country boat. The deaths on the journey aggregated 44, or 13·1 per mille, against 35, or 19·6 per mille, in the previous year ; but to these must be added 30 deaths which occurred in the debarkation depôts. As regards Sylhet, the returns supplied by the local agents of the India General Steam Navigation Company, Fenchuganj, show that out of 11,944 coolies imported, only 2,224, or 18·6 per cent., used the steamers for transit from Goalundo to Fenchuganj, against 3,563, or 43·9 per cent., in the previous year. Four persons were reported by the agents as having died from cholera during the journey to Sylhet. No explanation is forthcoming of the greater extent to which the steamer service is used for the conveyance of coolies to Cachar than to Sylhet ; but as regards the falling off in the percentage of coolies who were conveyed by steamer to the latter district during the year under report the Deputy Commissioner observes :

The only reason which suggests itself for the falling off in the percentage of coolies who used the despatch steamers is that more coolies now come to the tea districts independently (*i.e.*, unaccompained by contractors' agents) and that they prefer the cheaper route.

The Chief Commissioner is of course aware that a large proportion of immigrants into the Surma Valley come up under the free method, and can accordingly travel by whatever means they choose, while the tendency of the system of recruitment generally adopted in that valley is to favour recourse to the cheapest means of transport. On the other hand, it is urged, and not without reason, that the high rates of fares charged for the steamer journey deter immigrants, whether or not recruited under the free system, from making use of the steamer service. The reports received from the Deputy Commissioners make no mention of the results of the sanitary rules issued under the Bengal Act, I of 1889, and this matter will be separately enquired into, the Deputy Commissioners being required to notice it prominently in future reports.

When inspecting the Silchar depôt in November 1891, the Chief Commissioner recorded the following note :

The arrivals this year have been 2,826 to date, against 1,322 for the whole of last year distributed thus :

Year.	Emigrants.	Dependents.	Total.
1891 (to 14th November)	1,819	1,007	2,826
1890	793	529	1,322

I see that the total arrivals were in—

1885	2,660
1886	2,611
1887	2,253
1888	2,907
1889	2,737

The importation, therefore, of Act coolies through this depôt promises to exceed the importations of any year since 1884, and is already more than double the importations of last year.

The following statistics are instructive as obtained from the registers of this depôt :

Year.	Total number despatched from Goalundo.	Deaths *en route*.	Deaths at hospital.	Total deaths.	Arrivals at depôt.	Sent on to gardens.	Death rate *en route* per cent.	Death rate *en route* and at hospital, per cent.
1884 ...	4,219	351	81	432	3,822	3,715	8·31	10·23
1885 ...	2,793	110	35	145	2,660	2,622	3·93	5·19
1886 ...	2,854	178	19	197	2,611	2,589	6·23	6·90
1887 ...	2,385	79	22	101	2,253	2,229	3·31	4·23
1888 ...	3,058	95	36	131	2,907	2,866	3·10	4·28
1889 ...	2,899	117	61	178	2,737	2,673	4·03	6·14
1890 ..	1,344	16	10	26	1,322	1,309	1·19	1 93
1891 (to 14th November)	2,940	39	20	59	2,826	2,804	1·32	2·00

The deaths in the above statement do not include persons said to have absconded or to have been left behind. These figures speak for themselves. In 1881, before the steamer service was started, 8·31 per cent. of the immigrants under the Act died *en route* in a journey of, say, one month. This appalling death rate *en route* has now been reduced to 1·32 per cent., the period of the journey being of course much reduced.

We know nothing of the death rate among *free** immigrants who come up all the way from Goalundo, and some all the way from the North-Western Provinces, by boat, nor have we the means of ascertaining. It would appear from enquiries that I have made that these free immigrants are all from the North-Western Provinces. I should be glad if the Deputy Commissioner would ascertain for me why these men come up by boat to Fenchuganj in preference to the steamer. Is it because the sardár finds it cheaper, and is under contract with the planter to supply at a certain rate per head, or is it that the North-Western coolie objects to the steamer on the ground, as I have heard it stated, that he will not feed on board, and prefers feeding on shore?

The reasons why coolies are conveyed by boat in preference to steamer were subsequently thus explained by the Deputy Commissioner :

It appears that it is a common practice for managers to give a contract to a recruiter for so many coolies delivered on the garden at so much, say Rs. 15, per head. So long as he obtains the number of coolies he wants, the manager takes no further interest in the coolies, and the contractor of course tries to land them on the garden as cheaply as he can. With this object in view, he hires one or more large boats paying for it some fixed sum, packs into it all the coolies it can hold, and comes up by easy stages. It costs him less than bringing them by steamer, and if he has luck and does not get cholera, he can always dispose of any surplus coolies.

The coolies also prefer boat travelling. I refer more particularly to North-Western Provinces coolies, as they stop when and where they please on the way up, have always plenty of time to cook on shore, and above all because there are no (to them) irksome regulations which they are compelled to comply with.

Debarkation depôts.

9. The following statement shows the extent to which the debarkation depôts were used during the year under report :

District.	Number of depôts.	Total number of immigrants to district.	Number that passed through depôts.	Number detained at depôts				Contracts cancelled at depôts.	Expenditure.	
				Through want of a guide	In hospital.	For segregation.	For the night only.		Buildings	Establishments, &c.
1	2	3	4	5	6	7	8	9	10	11
									Rs. a. p.	Rs. a. p.
Cachar	2	5,525	3,229	.....	158	211	537	...	5,265 0 0	3,047 7 6
Sylhet	5	11,944	728	.....	3	88	.....	...	394 11 0	1,050 2 11
Kámrúp	...	.....	.....	.....	...	...	.....	...	.....	.....
Darrang	1	7,061	6,669	2,670	26	...	1,025	...	299 15 9	1,075 15 10
Nowgong ...	1	2,194	1,562	117	29	72	419	...	110 0 0	403 3 6
Sibságar	3	9,352	10,607†	3,558	68	487	1,251	...	532 5 3	2,855 8 1
Lakhimpur ...	1	13,130	10,913	2,830	84‡	...	6,708	...	300 0 0	1,076 10 0
Total	13	49,206	33,708	9,175	368	858	9,940	...	6,902 0 0	9,508 15 10
Total for 1890 ...	14	35,798	25,095	14,591	194	559	.....	...	2,014 11 0	9,783 0 5

The number of depôts remained the same as in the previous year, except that there was a decrease of one in the Sibságar district in consequence of the closing of the depôt at Kamalabari, to which reference was made in paragraph 10 of last year's report. As usual, only a small proportion of the immigrants into Sylhet passed through the depôts in that district. In accordance with orders passed during the year, the above statement comprises a separate column showing the number of coolies detained at depôts for the night only ; but even when these are excluded, the numbers detained through want of a guide continue to be considerable. The question whether a slightly higher charge should not be levied for the second and subsequent days during which persons are thus detained has been under the consideration of the Chief Commissioner, with the result that orders have been recently issued that, as an experimental measure, an enhanced rate should be levied in such cases, the Deputy Commissioner or subdivisional officer being authorised to remit the higher rate for sufficient reasons. During the year under report the Silchar depôt was removed to a new site, which accounts for the large expenditure on buildings in the Cachar district.

* This includes importations by unlicensed sardars as well as free immigrants in the true sense.

† This includes 1,784 immigrants for Dibrugarh and North Lakhimpur.

‡ This includes 14 deaths in the depôt.

Mortality at Dhubri and during transit on the Brahmaputra.

10. The number of labourers and dependents despatched from Dhubri was 19,552, of whom 30 (against 4 in the previous year) died *en route* to the gardens. Besides these, 11,776 immigrants were shipped at Goalundo for gardens in the Assam Valley (against 7,629 in the previous year), amongst whom 12 deaths occurred between Goalundo and Dhubri, 13 between Dhubri and Gauháti, 8 between Gauháti and Tezpur, and 5 between Tezpur and Dibrugarh.

The Deputy Commissioner of Goálpára reports that cholera broke out on several occasions in epidemic form among the Goalundo coolies, and it would seem to have been communicated to the coolies placed on board at Dhubri. In this connection it has to be remembered that it is not possible to keep coolies for a prolonged period at Dhubri, as to do so would involve the serious risk of overcrowding the depôts. Of the 30 deaths which occurred amongst the coolies shipped at Dhubri, no less than 19 were due to cholera, which is reported to have been prevalent amongst the immigrants between the months of February and July. The total casualties on the journey through the Assam Valley were as follows :

	Number of deaths		
	From cholera.	From other causes.	Total 1891.
At Dhubri	33	7	40
On board the steamers	19	11	30
At ports of debarkation—			
Gauháti	...	...	...
Tezpur	9	3	12
Silghat	...	...	...
Kokilamukh	3	3	6
Disangmukh	6	4	10
Nigriting	...	2	2
Mohanamukh	13	1	14
Total	83	31	114
Total for 1890	22	15	37

It will thus be seen that cholera is largely accountable for the increased mortality, though the deaths from other causes advanced from 15 in the previous year to 31.

Mortality during transit to the Surma Valley districts.

11. The following figures given by the Deputy Commissioners of Cachar and Sylhet refer only to coolies imported under the Act who passed through the depôts :

District.	Year.	Number of immigrants who left Goalundo.	Deaths.			
			En route.	In hospital.	Total.	Proportion per mille.
Cachar ..	1891	3,348	44	30	74	22·1
	1890	1,784	25	10	35	19·6
Sylhet ...	1891	729	1	...	1	1·3
	1890	1,521	2	...	2	1·3

The increase which took place in the mortality in the Cachar district is to be regretted. It was mainly due to cholera, which caused 56, or two-thirds of the total deaths. The Deputy Commissioners referred to have not reported how much of this mortality occurred on steamers. They have been directed to give this information in future.

Cases of kidnapping, fraudulent recruitment, and enticement

12. During the year under report, the usual careful watch was kept in regard to complaints of fraudulent practices in connection with recruitment, and action was invariably taken when necessary. On this subject the Deputy Commissioner of Goálpára writes :

Inquiries relating to fraudulent recruitment of coolies were made on three accounts, *viz.*, (*a*) on receipt of complaints from the magistrates of the recruiting districts or from the relatives of the persons enticed away ; (*b*) on coolies complaining to the registering officers direct ; (*c*) on registering officers suspecting any fraud having been practised in the recruitment of any coolie produced before them for registration.

In 1891, 95 enquiries in all were made, against 198 in the previous year, of which 63 were of first, 3 of second, and 29 of third description.

Inquiry regarding 46 missing persons was unsuccessful. Only 17 persons were traced. The cases of 7 persons were abandoned, as all of them were of 16, or above 16, years of age. The statements made by three persons disclosed no criminal action, so their cases were dropped. One person was quite willing to serve in the garden. The case regarding one was struck off from the statement, as the person enquiring regarding her was not traceable. Two persons were medically rejected, and returned home, of whom one came again with her relatives. Punishment was obtained in the case of two persons only. In one case one of the accused was sentenced to undergo one year's rigorous imprisonment and a fine of Rs. 100, or, in default, three months' rigorous imprisonment more, under sections 417 and 420, Indian Penal Code, and the other sentenced to six months' rigorous imprisonment and a fine of Rs. 50, or, in default, to one month's rigorous imprisonment under section 417, Indian Penal Code, and in another case one accused was sentenced to four months' rigorous imprisonment under section 497, Indian Penal Code. One case is still pending. The accused in the case that was pending in 1890 was discharged under section 253, Criminal Procedure Code.

The three persons complaining before the registering officers were forwarded to the magistrates in whose jurisdiction the offence was committed. One person voluntarily came back again, and the rest were unable to identify the recruiters. The four cases that were shown as pending in last year's report were abandoned, as in two of them the complainants were unable to furnish particulars regarding the recruiters, and in the rest the evidence to establish the complaints was insufficient.

Of the 29 persons enquired about at the instance of the registering officer himself, 12 were identified in their villages ; in the case of four of them no fraud was practised, as they came of their own accord. One was a woman of bad character. The relatives of seven did not take any steps to recover them, as it was impossible for them to get the contracts redeemed or to bring home any complaints. Of the four pending enquiries mentioned in last year's report, two were successful. In one case it was found that the woman was of loose character, and in the other no attempt was made by the relatives of the person for her recovery.

Commenting on these statistics, the Commissioner writes :

Complaints of fraudulent recruiting have been fewer than in the previous year, though the business has been more brisk. Adopting the threefold division of previous reports, I find the numbers are :

	First class.	Second class.	Third class.	Total.
1888	42	14	40	96
1889	47	28	97	172
1890	90	16	92	198
1891	63	3	29	95

The complaints in the first class are many of them mere police enquiries into missing persons, and should not, I think, find a place in a table of complaints of fraudulent recruiting.

The Chief Commissioner is not prepared to accept the view that complaints of the first class should in future be excluded.

The following figures relate to complaints made in the several districts of the province other than Goálpára :

District.	Complaints.	True cases.	False cases.	Not proved.	Pending.
Cachar	...	...	...	...	...
Sylhet	...	...	...	...	...
Kámrúp	...	...	...	...	...
Darrang	4	1	1	1	1
Nowgong	...	...	...	...	...
Sibságar	9	1	...	4	4
Lakhimpur	29	1	5	15	8

In Cachar and Sylhet no cases of kidnapping or fraudulent recruitment were brought to notice during the year. In one instance the Deputy Commissioner of Manbhum forwarded for enquiry by the Deputy Commissioner of Sylhet a complaint in which it was alleged that a woman of that district had been enticed away, and put under contract in the Habiganj subdivision. On enquiry the woman stated that she left her husband's home of her own accord and on account of the illtreatment

she received there. In Kámrúp no cases of fraudulent recruitment were brought to notice. In Darrang enquiries were made into four cases. In one case a gang of 13 coolies from Jabalpur, in the Central Provinces, complained that they had been enticed away. The Jabalpur authorities are still enquiring into this case, but it should be noted that the Deputy Commissioner of Goálpára reports that he himself put these coolies under contract at Dhubri, and that they gave their agreements willingly and cheerfully. In another case, which was reported by the Deputy Commissioner of Lohardaga, a complaint was made that a minor girl had been kidnapped. The girl was traced and sent to Lohardaga ; but the Deputy Commissioner acquitted the accused person on the express grounds—(1) that the girl was not a minor, and (2) that she was not taken away by force or fraud. A third case, in which a Musalman girl was said to have been smuggled into Assam, was enquired into by the authorities at Gorakhpur in the North-Western Provinces. This girl was supplied to the Bishnath Tea Company by a contractor as a Hindu woman from Deoghur in the Sonthal Parganas. The Chief Commissioner understands from the Deputy Commissioner's report that she has been repatriated. The fourth and last case was enquired into at the request of the Deputy Commissioner of Manbhum, and related to two coolies employed by the Bhareli Tea Company, both of whom alleged that they had executed their agreements willingly, and were quite happy. In the Nowgong district no case of kidnapping or fraudulent recruitment was brought to light during the year. In Sibságar an enquiry was made, at the instance of the subdivisional officer of Dumka, into the case of a married woman, who was said to have been enticed away from her home and to have been sent to a tea garden in that district. In the course of the enquiry, the woman stated that she had been enticed away from her home, but that she had executed a contract at Dhubri of her own free will, that she had quarrelled with her mother-in-law, and did not wish to return to her husband. The subdivisional officer, Dumka, has not yet communicated the final result of this case. In another case a complaint was made that a lad had been recruited in the district of Lohardaga under a false name. He was sent to Ranchi to give evidence with the result that he was shown to have been recruited under a false name, but it was not clear that he had been recruited by fraud. The person who was accused in this case was discharged under section 253 of the Criminal Procedure Code, and, with the consent of the owners of the garden, the contract was cancelled on payment of compensation by the relatives of the boy. In a third case complaint was made by the brother of an immigrant that the latter had been fraudulently recruited under a false name from Giridhi. This complaint was corroborated by the immigrant, but enquiry showed that the case was probably false, and it was dropped, as the relatives of the man did not wish to press it. Eventually, the man absconded from the garden, and returned to his home. In a fourth case enquiry was made in regard to a boy who was said to have been kidnapped, but no trace of him could be found. The fifth case relates to two coolie women who complained to the Deputy Commissioner when inspecting a garden that they had been fraudulently recruited. On enquiry at Rewa, where their homes were said to be, no trace of them could be found. In the sixth and seventh cases a complaint was made by a woman and by a man that they had been seized by *arkatis* and sent to Assam against their will. These cases are still under enquiry by the Deputy Commissioner of Singhbhum ; but in the meantime the woman has been repatriated at the cost of the garden manager, her agreement having been cancelled by mutual consent. In another case a gang of some fifteen coolies in the Golághát subdivision complained that they had been fraudulently recruited. These men were registered at Raniganj, and put under contract at Calcutta. Enquiries are now being made at the places where they were recruited. In the case left pending from the previous year, in which a woman was stated to have been abducted from her home in the Manbhum district, the Deputy Commissioner of Sibságar is taking steps for the repatriation of the woman and for the cancelment of her contract, as there was reason to suppose that she had been recruited by deceit. In the Lakhimpur district 29 cases of alleged fraudulent recruiting were enquired into, against 13 cases in the previous year. Of these 29 cases, 10 related to single women, 2 of whom could not be traced. One of the women to whom these complaints related denied having been brought up on false pretences, and one, though alleged to have been brought up under false pretences, was willing to remain on the garden to serve out the term of her contract, while two cases were dismissed, one as a mistake of fact, and the other because the woman was over 16 years of age, and a charge under section 363 of the Indian Penal Code could not be maintained. In another case the magistrate in Bengal could give no information as to how the woman was recruited, but it appeared from enquiries made there that the woman was probably a willing agent. The results of three cases are not known, as replies to the Deputy Commissioner's reference to Bengal districts have not been received.

Three cases referred to three batches of single women, two consisting of three women each and one consisting of two women. In one case the charge against the accused was under section 363, Indian Penal Code; but the two girls alleged to have been kidnapped, were over 16 years of age, and as they came up to Assam of their own free will, the case was dismissed under section 253, Criminal Procedure Code. In the second case the women (three) appeared to be of loose character, and no fraud seemed to have been used in recruiting them, while the third case is pending receipt of reply from Bengal. In seven cases it was alleged that ten boys were kidnapped from their homes. In four cases the boys being over 16 years of age, the cases were struck off; in one case the boys could not be traced; while two cases are still pending in Bengal. Five cases referred to five batches of coolies, who complained that they had been brought up under false pretences. In the first of these cases, six coolies of the Hukanguri garden deserted, and when brought up for trial, complained that they had been fraudulently recruited. The Deputy Commissioner of Goálpára reported that the contracts were duly executed. The Deputy Commissioner of Lakhimpur subsequently saw the coolies on the garden. The two leaders had deserted, and the rest had no complaints to make. In the second case four coolies of the Khobang tea estate deserted, and when brought up for trial, alleged that they had been wrongfully recruited by a sardár of the Khobang garden. They failed to prove their case. The third case related to a batch of three coolies, who were brought up to the Assam Railway and Trading Company's coal mines. The agreements were cancelled, and the coolies were sent to their homes. The Agent objected to pay the expense, which fell on Government. In the fourth case about 140 Rewa coolies of the Khobang tea garden came into Dibrugarh, and complained that they had been recruited by the native doctor of the garden under false pretences, and that while in the garden they had been illtreated by the manager. These coolies behaved in a lawless manner, and when they returned to the garden assaulted the manager. The Deputy Commissioner tried some of them for rioting, and imprisoned them for various terms. The complaint of illtreatment on the garden was ascertained to be false, and the question whether the coolies were recruited under false pretences is still under enquiry. In the fifth case four coolies from Jabalpur were sent up for the Hilika tea garden. The coolies on arrival at Dibrugarh complained that they have been sent up against their will. The statements of these coolies have been sent to the Deputy Commissioner of Jabalpur for enquiry, but no reply has yet been received. There were also four cases which referred to four batches of Nepali coolies recruited from Darjeeling, who repudiated their contracts on arrival and refused work. The cases are as follows:

(1) A batch of 9 Nepali coolies recruited by Mr. Willis, of Darjeeling, for the Rowmari tea garden in the Lakhimpur district, struck work when they arrived on the garden, and when brought up for trial, alleged that they had been recruited as sepoys, and not as tea garden coolies. They stated that they objected at Dhubri to come up as coolies, but were told that as they were recruited at the garden expense, they must go on. They were ordered to go back to the garden, but refused, and were sentenced to seven days' imprisonment each under section 171 of Act I of 1882. The case was referred to the Deputy Commissioner of Darjeeling, who could give no information regarding the manner in which the coolies were recruited, as they were not placed before any magistrate there, but regarded it as improbable that any representation was made to them that they were to be enlisted as sepoys. The manager of the garden reported later on that the coolies were fairly contented.

(2) Two Nepalis, a man and his wife, were brought up for the Chalkhowa tea estate. They executed contracts before the Superintendent of Emigration, Calcutta. On arrival at the garden, they complained that they had been brought up under false pretences; the man alleging that he was told that he would be employed as a gunkeeper with a *sahib*, and his wife as an *ayah*. The manager proved by the evidence of three other coolies who came up in the same batch with them, that they executed the contracts before the Superintendent of Emigration, Calcutta, and their allegations appeared to be false. The contracts were therefore enforced against them, they being imprisoned for seven days. The man afterwards died in the charitable hospital, and the contract of his wife was cancelled under section 122 of Act I of 1882.

(3) Fifteen Nepali coolies arrived in June 1891 for the Talup tea estate. These coolies, also recruited by Mr. Willis of Darjeeling, repudiated their contracts on arrival at the depôt, and refused to proceed to the garden. They alleged that they had been told they would be employed as sepoys on the Manipur expedition, and would be paid at the rate of Rs. 10 a woman and Rs. 12 a man. They further stated that they had objected at Dhubri, but were brought up forcibly. Mr. Willis, who was present, denied the charge. The Deputy Commissioner ordered the coolies to proceed to the garden pending enquiries at Dhubri and Darjeeling. They at first refused to go, but afterwards went to the garden.

The Deputy Commissioner of Goálpára recommended cancelment of the contracts of these coolies, as they objected to be sent up as coolies. Two of these people died on the garden, and the rest were sick, and did not work. The Deputy Commissioner permitted the manager to cancel their agreements by mutual consent, as they were not physically unfit, but some of the coolies deserted before this could be done.

(4) Twenty-six Nepali coolies, recruited by the same contractor, who came up for the Assam Railway and Trading Company's collieries in August last, refused to work in the mines, and complained that they had been brought up under false pretences and repudiated their contracts. They deserted from Margherita, and were met by the Deputy Commissioner on the line of rail as he was on his way to Margherita, and were ordered to return. This they refused to do, and the Deputy Commissioner accordingly caused them to be arrested and sent back under police escort. The Deputy Commissioner of Goálpára reported that he himself had the contracts explained to these men, and that they all understood where they were going to and what they would have to do. The coolies have all, it is believed, since deserted, except two whose contracts were cancelled at the request of the Agent and General Manager of the Railway Company under section 122 of Act I of 1882, and who were sent back to their country.

It may be noted that all these Nepalis have been recruited by one contractor, and that they have in almost every instance repudiated their contracts and given great trouble. In accordance with a suggestion made by the Deputy Commissioner of Lakhimpur, the Deputy Commissioner of Darjeeling has agreed to insist on the contractor concerned producing his coolies before a magistrate. Another class of coolies who are reported as having given trouble are Rewa coolies recruited at Jabalpur by the *arkatis* of the Labour District Supply Association.

The Chief Commissioner is glad to notice from the Report of the Collector of Ganjam on Inland Emigration from that district that although in 1890 there were a good many complaints of kidnapping, in 1891 such complaints were few in number, and none were substantiated. The report proceeds to say that enquiries made show that the emigrants proceed to Assam cheerfully, having learned from returned emigrants the nature of the work and the prospect of profit.

CHAPTER II.

LABOUR FORCE.

Statistics of the labour force

13. The table below shows the additions to, and deductions from, the total labour force of the province during the year 1891 :

Labour force remaining at the end of the year 1890 (column 2 of statement)	408,140
ADDITIONS—	
Imported by contractors or garden sardárs, including free labourers and dependents imported direct (columns 3, 4, and 5 of statement) ...	49,908
Local labour contracts entered into under sections 111 and 112 of Act I of 1882 (columns 6 and 7 of statement)	19,313
Received from other gardens (column 8 of statement)	6,370
Deserters recaptured (column 9 of statement)...	483
Remaining after expiry of contract (column 10 of statement) ...	16,482
Otherwise obtained (column 12 of statement)	20,471
Births	11,557
Total	124,584
DEDUCTIONS –	
Transferred to other gardens (column 16 of statement)	4,383
Left with permission or on expiry of contract (columns 17 and 27 of statement)	52,267
Deaths (column 18 of statement)	15,832
Desertions (column 19 of statement)	12,748
Free labourers put under contract (columns 21 and 22 of statement) ...	9,278
Contracts cancelled under sections 111, 140, or 177, Act 1 of 1882 (column 23 of statement) ...	18
Ditto ditto 122 (column 24 of statement) ...	643
Contracts redeemed under section 142 („ 28 „ „) ...	6
„ dissolved by mutual consent („ 29 „ „) ...	138
Total	95,313
Net increase during the year	29,271
Grand total at the close of the year	437,411

The above figures show that the total of the labour force in the province at the close of the year under report was 437,411, or 7·1 per cent. in excess of the figures at the close of the previous year. This result was of course due to the larger importations made during the year 1891.

Mean strength of the labour force.

14. The statement below shows the total labour force at the beginning and end of each of the last three years and the mean strength for the two half-years of 1891 :

Class of labourers.		1st January 1889.	1st January 1890.	1st January 1891.	1st July 1891.	Mean strength for the first half-year of 1891.	31st December 1891.	Mean strength for the second half-year.
Act adults		88,311	97,270	101,904	109,982	105,943	111,669	110,825
Non-Act ...	Adults ...	133,901	142,424	147,453	161,045	154,249	158,183	159,614
	Children ...	132,054	150,774	158,783	164,494	161,638	167,559	166,026
Total		354,266	390,468	408,140	435,521	421,830	437,411	436,466

District figures of the labour force.

15. The details of the labour force of each district showing the variations of strength during the year 1891 are given below :

District.	1st January 1891.	31st December 1891.	Percentage of total provincial force.	Increase or decrease.	Percentage of increase or decrease.
Cachar	99,856	102,324	23·3	+2,468	+2·4
Sylhet	82,717	90,763	20·7	+8,046	+9·7
Total Surma Valley	182,573	193,087	44·1	+10,514	+5·7
Kámrúp	3,012	3,611	·8	+599	+19·0
Darrang	43,271	47,314	10·8	+4,043	+9·3
Nowgong	15,349	16,422	3·7	+1,073	+6·9
Sibságar	91,234	96,426	22·0	+5,192	+5·6
Lakhimpur	72,701	80,551	18·4	+7,850	+10·7
Total Assam Valley	225,567	244,324	55·9	+18,757	+8·3
Grand total	408,140	437,411	100·0	+29,271	+7·1

The percentage of increase for the province generally thus advanced from 4·5 in the previous year to 7·1 in the year under report. In the Surma Valley the percentage of increase advanced from 3·3 in the previous year to 5·7, and in the Assam Valley from 5·4 to 8·3.

16. The nationality and sex of the adult labour force at the beginning and end of the year under report are shown in the following table :

Nationality and sex of the adult labour force.

Nationality.	Sex.	Act.		Non-Act.		Total.		Ratio of nationality.
		1890.	1891.	1890.	1891.	1890.	1891.	
1	2	3	4	5	6	7	8	9
Bengal	Men ...	8,714	9,035	19,765	20,741	28,479	29,776	21·8
	Women	8,292	8,791	19,118	20,054	27,410	28,845	
North-Western Provinces and Oudh.	Men ...	4,006	4,902	14,463	16,118	18,469	21,020	14·9
	Women	2,799	3,569	13,018	15,290	15,817	18,859	
Behar	Men ...	3,133	3,882	5,693	6,363	8,826	10,245	7·0
	Women	2,462	3,007	4,868	5,567	7,330	8,574	
Chota Nagpur ...	Men ...	35,274	36,860	31,100	32,863	66,374	69,723	49·1
	Women	30,679	32,863	28,162	29,728	58,841	62,591	
Nepal	Men ...	37	74	113	137	150	211	0·1
	Women	19	18	74	99	93	117	
Madras	Men ...	1,659	2,445	1,083	1,382	2,742	3,827	2·8
	Women	1,433	2,157	1,120	1,383	2,553	3,540	
Bombay ...	Men ...	9	39	135	168	144	207	0·2
	Women	10	35	131	159	141	194	
Assam	Men ...	2,516	2,714	6,654	6,121	9,170	8,835	4·1
	Women	831	1,232	1,873	1,927	2,704	3,159	
Orissa	Men ...	19	28	45	45	64	73	...
	Women	12	18	38	38	50	56	
Total	Men ...	55,367	59,979	79,051	83,938	134,418	143,917	...
	Women	46,537	51,690	68,402	74,245	114,939	125,935	
Grand total ...	.....	101,904	111,669	147,453	158,183	249,357	269,852	...

N.B.—The differences between the entries in columns 5 and 7 and those in columns 6 and 8 of the statement embodied in paragraph 17 of the report for 1890, are due to causes explained at foot of the statement at the end of this report.

The proportion of Act, non-Act, and all coolies belonging to each nationality is shown below :

	1890.	1891.		
	Total.	Act labourers.	Non-Act labourers.	Total.
Bengal	22·4	15·96	25·79	21·8
North-Western Provinces and Oudh.	20·2	7·59	19·85	14·9
Behar		6·17	7·54	7·0
Chota Nagpur	50·3	62·44	39·57	49·1
Nepal	0·1	·08	·15	0·1
Madras	2·1	4·12	1·75	2·8
Bombay	0·1	·07	·21	0·2
Assam	4·8	3·53	5·09	4·1
Orissa	...	·04	·05	...
Total	100·	100·	100·	100·

17. The mean strength in each district for each half-year and for the whole year is shown in the following table. The percentages of mortality and desertions are calculated on these figures :

Mean strength of labour force in each district.

District.	Act.			Non-Act.						Total annual strength.		
				Adults.			Children.					
	First half-year.	Second half-year.	Annual mean.	First year-year.	Second half-year.	Annual mean.	First half-year.	Second half-year.	Annual mean.	First half-year.	Second half-year.	Annual mean.
Cachar	8,020	7,399	7,709	48,812	50,554	49,683	44,634	44,747	44,690	101,466	102,700	102,083
Sylhet	8,192	7,646	7,919	44,010	46,634	45,322	33,613	35,557	34,585	85,815	88,838	87,326
Kámrúp ..	745	842	793	1,429	1,557	1,493	1,152	1,227	1,190	3,326	3,626	3,476
Darrang ..	20,116	21,857	20,986	11,257	11,268	11,261	13,405	13,677	13,541	44,778	46,800	45,789
Nowgong ..	3,488	3,770	3,629	7,017	7,095	7,056	5,654	5,830	5,742	16,159	16,695	16,427
Sibsagar ..	36,385	37,785	37,085	21,576	21,799	21,687	36,723	37,195	36,709	94,184	96,779	95,841
Lakhimpur ..	28,997	31,525	30,261	20,148	20,708	20,428	26,956	27,793	27,375	76,101	80,026	78,063
Total	105,943	110,825	108,384	154,249	159,614	156,931	161,638	166,026	163,832	421,830	436,466	429,148

CHAPTER III.

CONTRACTS AND WAGES.

18. The number of contracts executed under section 111 of the Act increased from 16,715 in the previous year to 18,256, or by 9 2 per cent., while the number of local contracts executed under section 112 of the Act in the presence of the Inspector advanced from 698 to 1,057, or by 51·4 per cent. In addition to the above, 12,910 contracts were executed at Dhubri under section 111 of the Act, against 8,130 in the previous year, and 3,906 were entered into in the recruiting districts, against 4,908 in 1890. Thus the total number of contracts executed during the year under report, whether in the districts of recruitment, at Dhubri, or in the labour districts was 36,129, against 30,451 in the preceding year. These figures do not include contracts under Act XIII of 1859.

Number of contracts made.

19. The following table shows the sex and nationality of the labourers who entered into local contracts, district by district :

Nationality of labourers making local contracts.

District.	Sex.	Contracts under section 111.	Contracts under section 112.	Particulars of columns 3 and 4 by nationality.										Total of columns 3 and 4.
				Bengal.	North-Western Provinces and Oudh.	Behar.	Chota Nagpur.	Nepal.	Madras.	Bombay.	Assam.	Orissa.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Cachar	Men	491	107	152	215	70	146	..	4	5	6	..	538
	Women	409	66	117	156	67	120	..	6	7	2	..	475
	Total of 1891	*900*	*173*	*269*	*371*	*137*	*266*	..	*10*	*12*	*8*	..	*1,073*
	„ „ 1890	696	63	274	316		149	2	10	3	5	..	759
Sylhet	Men	1,197	....	128	420	217	180	..	249	1	1	1	1,197
	Women	943	2	177	268	102	163	..	235	..	....	..	945
	Total of 1891	*2,140*	*2*	*305*	*688*	*319*	*343*	..	*484*	*1*	*1*	*1*	*2,142*
	„ „ 1890	1,770	....	242	479		517	..	532	..	....	..	1,770
Kámrúp.. ..	Men	16	1	3	....	....	1	..	..	..	13	..	17
	Women	4	....	....	....	....	1	..	..	..	3	..	4
	Total of 1891	*20*	*1*	*3*	....	....	*2*	.	..	..	*16*	..	*21*
	„ „ 1890	3	1	....	....		....	..	..	..	4	..	4
Darrang.. ..	Men	2,082	73	273	78	73	724	..	10	..	997	..	2,155
	Women	1,732	18	237	41	50	785	..	6	..	631	..	1,750
	Total of 1891	*3,814*	*91*	*510*	*119*	*123*	*1,509*	..	*16*	..	*1,628*	..	*3,905*
	„ „ 1890	3,344	141	521	318		1,537	1	11	..	1,097	..	3,485
Nowgong ..	Men	190	9	29	....	7	161	..	..	..	2	..	199
	Women	109	1	25	....	2	83	.	.	..	....	..	110
	Total of 1891	*299*	*10*	*54*	....	*9*	*244*	..	..	..	*2*	..	*309*
	„ „ 1890	127	20	16	10		110	..	..	..	11	..	147
Sibságar ..	Men	4,571	326	869	153	458	2,660	7	29	11	715	..	4,897
	Women	3,417	231	792	120	389	2,191	..	43	1	112	..	3,618
	Total of 1891	*7,988*	*557*	*1,661*	*273*	*842*	*4,851*	*7*	*72*	*12*	*827*	..	*8,545*
	„ „ 1890	8,400	392	1,658	1,288		4,931	29	27	5	954	..	8,792
Lakhimpur ..	Men	1,849	131	263	26	51	1,623	1	11	..	15	..	1,990
	Women	1,246	92	210	14	42	1,062	.	3	..	7	..	1,328
	Total of 1891	*3,095*	*223*	*463*	*40*	*93*	*2,685*	*1*	*14*	..	*22*	..	*3,318*
	„ „ 1890	2,375	81	267	97		2,051	..	15	..	26	..	2,4[illegible]6
	Grand total of 1891 ..	*18,256*	*1,057*	*3,265*	*1,491*	*1,523*	*9,900*	*8*	*590*	*25*	*2,504*	*1*	*19,313*
	„ „ „ 1890 ..	16,715	698	2,978	2,808		9,195	32	595	8	2,097	..	17,413

In all districts, except Sibságar, an increase took place in the extent to which resort was had to section 111 of the Act, and in the case of section 112 the only districts which show a decrease, as compared with the previous year, are Darrang and Nowgong.

Details of local contracts.

20. The following table gives details of local contracts, the classes of labourers who entered into them, and the terms of the contracts. This table does not include contracts executed at Dhubri, figures relating to which will be given at the close of the paragraph.

District.	Section 111.	Section 112.	Class of labourers.				Number of years.							
			New.	Time-expired.	Old Act coolies transferred.	Local.	Under one year.	1	2	Under two and a half years.	3	4	Under five years.	5
Cachar	900	173	730	343	....	....	....	37	209	....	445	..	....	382
Sylhet	2,140	2	1,602	540	....	....	....	404	204	....	1,489	..	....	45
Kámrúp .. .	20	1	....	5	....	16	....	19	....	....	1	..	....	1
Darrang	3,814	91	18	2,409	....	1,478	105	1,498	951	....	737	27	....	587
Nowgong	299	10	14	234	61	....	....	208	39*	2†	51	3	....	6
Sibságar	8,169	557	1,604	6,503	....	619	72	2,762	2,653	41	2,921	56	111	110
Lakhimpur	3,095	223	353	2,943	....	22	1	1,999	859	....	189	28	....	242
Total..	18,437‡	1,057	4,321	12,977	61	2,136	178	6,927	4,915	43	5,833	114	111	1,373
Total for 1890	16,875	698	3,784	11,386	12	2,291	341	6,067	4,145	25	5,965	207	66	757

Under the head of section 111 the only noticeable point is, that in spite of the larger importation of labour, which characterised the year under report, Sibságar shows a decrease in the number of contracts executed under this section (from 8,560 in the previous year to 8,169). In all other districts there was a more or less decided increase. The figures under section 112 do not call for remark.

As regards the class of labourers who entered into local contracts, there was a considerable increase under the head of time-expired labourers ; but, on the other hand, the number of local labourers who contracted was somewhat smaller than in the preceding year.

The figures relating to the duration of contracts do not require comment, except in regard to the considerable increase which took place under contracts for five years. This increase was common to all districts except Nowgong and Sibságar, and was especially marked in Cachar, where the number of five-year contracts increased from 28 in the previous year to 382 in the year under report. The Deputy Commissioner of Cachar explains that the whole of these five-year contracts were entered into by new coolies.

As regards the 29,056 contracts executed at Dhubri, the figures for 1890 and 1891 stand as follows :

Year.	Three-year contracts.			Five-year contracts.			Total contracts.		
	Labourers.	Dependents.	Total.	Labourers.	Dependents.	Total.	Labourers.	Dependents.	Total.
1890 ...	1,719	921	2,640	6,411	2,402	8,813	8,130	3,323	11,453
1891 ...	2,348	1,144	3,492	10,562	3,549	14,111	12,910	4,693	17,603

Although five-year contracts constituted from 96 to 98 per cent. of the total number of contracts executed at Dhubri in the years 1887 and 1888, the proportion has recently shown signs of decreasing. In 1889 the proportion was still high, being 98·3 per cent., but in 1890 it fell to 78·8 and in 1891 to 81·8 per cent. The reason for this is that fewer "jungly" coolies and more coolies from the North-Western Provinces, Central Provinces, and Behar are now recruited. These latter often refuse to contract for more than three years on arrival at Dhubri. The recruitment also of Ganjami coolies began in 1890, who are registered under Madras Act, V of 1866, and rarely agree to serve for more than three years.

* This includes 23 contracts for more than one year and less than two.

† For two and a half years.

‡ The difference between this entry and that in column 3 of the table in paragraph 19 showing nationality of labourers entering into local contracts and in column 6 of the statement at the end of the report is in the case of Sibságar, and is attributed to the fact that 181 contracts executed in the gardens and sent for registration towards the end of the year were omitted by the managers from their returns.

21. The following table shows the extent to which contracts executed locally have been verified during the year :

Verification of contracts.

1 District.	2 Number and year of contracts under section 111 (excluding those executed at Dhubri) remaining unverified at beginning of the year under report. 1888	1889	1890	Total.	3 Number of contracts executed during the year under section 111.	4 Total of columns 2 and 3.	5 Number of such contracts executed after the first inspection where the garden has been inspected during the year under report.	6 Total number of contracts for verification (column 4, minus column 5).	7 Number of contracts susceptible of verification (column 6, minus total of column 13).	8 Number of contracts of the year under report susceptible of verification, column 8 — (column 5 minus total of subcolumn for year under report in column 13).	9 Number and year of contract. (a) Verified. 1888.	1889.	1890.	1891.	Total.
Cachar	..	75	361	436	900	1,336	122	1,214	1,065	664	..	63	338	664	1,065
Sylhet	..	3	618	621	2,140	2,761	1,089	1,672	1,411	959	..	3	448	955	1,406
Kámrúp	..	..	..	.	20	20	10	10	3	3	..	..	..	3	3
Darrang	..	..	1,247	1,247	3,814	5,061	1,651	3,410	3,351	2,129	..	.	1,215	2,092	3,307
Nowgong	..	..	9	9	299	308	20	288	213	205	..	.	8	205	213
Sibságar	277	403	3,027	4,607	8,169	12,776	2,143	10,633	9,100	5,819	126	140	2,477	5,491	8,234
Lakhimpur .. .	..	..	908	908	3,095	4,003	406	3,597	3,529	2,640	..	..	889	2,640	3,529
Total of 1891	277	481	7,070	7,828	18,437†	26,265	5,411	20,824	18,672	12,419	126	206	5,375	12,050	17,757
" " 1890	762‡	4,007	..	4,769	16,875	21,644	5,884	15,760	12,245	....‡	166‡	2,391	9,000	. ..	11,591

District.	9 Number and year of contract contd (b) Cancelled. 1888.	1889	1890	1891.	Total	10 Total (of totals under column 9).	11 Percentage of contracts verified or cancelled (total of column 10 on total of column 7).	12 Percentage of contracts of year under report, verified or cancelled (total of subcolumns for year under report in column 9 on total of column 8).	13 Remaining unverified (of those incapable of verification) on account of: Expiry of the term of contract. Of previous years	Of 1891	Total.	Death or desertion of the labourer. Of previous years.	Of 1891.	Total.	Absence of the labourer on the date of inspection on recruiting work. Of previous years.	Of 1891.	Total.	Sickness. Of previous years	Of 1891.	Total.	Total. Of previous years	Of 1891	Total.
Cachar	..	..	..	..	..	1,065	100	100*	16	..	16	30	19	49	30	54	84	..	..	..	76	73	149*
Sylhet	..	..	1	4	5	1,411	100	100*	..	..	..	136	60	196	33	32	65	..	..	.	169	92	261
Kámrúp	..	..	..	.	..	3	100	100*	..	..	..	..	2	2	..	2	2	..	3	3	..	7	7
Darrang	..	..	7	37	44	3,351	100	100	..	12	12	..	35	35	..	12	12	..	..	..	..	59	59*
Nowgong . ..	..	..	..	..	.	213	100	100	1	68	69	..	6	6	.	..	..	..	..	..	1	74	75
Sibságar	.	1	7	8	8,242	90·6	94·5	901	7	908	114	101	215	311	99	410	..	..	..	1,328	207	1,535
Lakhimpur	..	..	..	..	..	3,529	100*	100*	..	..	..	13	9	22	4	35	39	2	5	7	19	49	68
Total of 1891. ..	..	..	9	48	57	17,814	95·4	97·4	918	87	1,005	293	232	525	378	234	612	2	8	10	1,591	561	2,152
" " 1890 ..	..	11	13	..	24	11,620	73·7	82·3	1,244			410			1,581						3,515		

This return shows a substantial improvement in the work of verification of local contracts, but the Chief Commissioner feels bound to observe that the correctness of the percentages shown in columns 11 and 12 is open to doubt. In accordance with the instructions of the Government of India,‖ an effort has been made to calculate the percentage of verifications on the number of contracts susceptible of verification only, a deduction being made of all cases which could not be enquired into owing to the expiry of the contracts, the death or desertion of the labourers, or their absence on recruiting work, or for other causes. The result of this change in the system of calculation is that all districts except Sibságar show that no contracts susceptible of verification were left unverified at the close of the year under report. The Chief Commissioner would be glad to believe that this was the case, but fears that such a satisfactory result is at least doubtful. It is, however, scarcely necessary to pursue the matter in connection with the present report, as Mr. Ward has recently submitted to the Government of India proposals, one object of which is to ensure the complete performance of the work of verifying local contracts.

‖ Paragraph 9 of the Resolution on the Assam Immigration Report for 1890.

* Correct information not available.

† See explanation at foot of the statement showing details of local contracts.

‡ Information not available.

‖ The figures include the figures of 1887 (6 and 1 respectively.

Expiry and cancelment of contracts.

22. The following table shows the number of contracts which expired by lapse of time, the number of such contracts reported by managers and the number of contracts cancelled or which terminated in other ways :

District.	Number shown in garden returns as time-expired.	Number of time expired contracts reported under section 141.	Number cancelled by Inspector under section 111.	Number suspended by Inspector for temporary unfitness, section 120.	Number cancelled by Inspector for permanent incapacity, section 122.	Number made void by committee by reason of unfitness of estate, section 129.	Number cancelled by magistrate under section 140.	Number redeemed under section 142	Number dissolved by mutual consent.
Cachar	3,391	3,349	.....	.....	.....	.....	.....	1	38
Sylhet	2,771	2,764	1*	.....	10	.....	.....	.....	2
Kámrúp	35	12	.....	.....	1	.....	.....	.....	2
Darrang	3,615	3,615	9	.....	23	.....	.....	.....	35
Nowgong	374	264	.....	.....	51	.....	.....	.....	5†
Sibságar	9,619	7,602	8	.....	144	.....	.....	3	9
Lakhimpur	4,952	4,952	.....	.....	414	.....	.....	2	47‡
Total of 1891	24,757	22,558	18	.....	643	.....	.....	6	138
" " 1890	20,504	17,188	15	16	320	1	55	17	73

There was some improvement in the extent to which managers complied, during the year under report, with the requirements of section 141 of the Act, but the results in some districts, *e.g.*, Kámrúp, Nowgong, and Sibságar, were far from satisfactory. Section 141 of the Act renders it obligatory on employers to give to the Inspector notice in writing of the determination of labour contracts within one month from the date of such determination, and the Chief Commissioner fully accepts the opinion expressed by the Government of India in reviewing the Provincial Report for the year 1890, that strong action should be taken in any cases in which managers fail to report the expiry of contracts, as required by the above section. From the district reports it appears open to doubt whether the importance of this matter is sufficiently appreciated by district officers in all cases. Thus the Deputy Commissioner of Kámrúp contents himself with observing—

Managers have been irregular in submitting returns of time-expired contracts under section 141. Their attention will be called to the matter.

The Deputy Commissioner of Darrang remarks :

Section 141 is not complied with strictly. Some managers report expiries every month, but some send in their reports with their half-yearly returns. I am never asked, however, to give coolies' certificates, and have not thought it necessary to prosecute managers under section 163.

The Deputy Commissioner of Nowgong reports :

There were 374 contracts shown in the garden returns as expired, but the notices of expiry of contracts were received for 264 contracts only. During the year under report I have issued again *takids* to report the remaining cases as soon as possible. Some of the managers are indifferent to office reminders ; they do not send out the usual notice of expiry until these expiries are detected in the half-yearly returns.

The Deputy Commissioner of Sibságar, where the irregularity was specially observable, merely says that there is improvement as compared with the previous year, and that he has again called the attention of all the managers in the district to the necessity of reporting all time-expired contracts. The Deputy Commissioner of Lakhimpur reports that though all the contracts which expired during the year were reported, this was only done in many cases after much correspondence regarding the omissions. Upon this point the Chief Commissioner would observe that there can be no possible reason why notice of the determination of labour contracts should not be regularly and punctually given to the Inspector as required by the law, and it is the duty of Deputy Commissioners to see that this is done, and that, if it is not done, prosecutions are undertaken against those employers who fail to comply with the law.

* A minor.

† All dissolved with a view to renewal.

‡ Eleven contracts were dissolved on marriage and renewal of contracts.

The figures for cancelment of contracts show a considerable increase under the heads of (1) Contracts cancelled by the Inspector for permanent incapacity under section 122 of the Act, (2) Contracts cancelled by mutual consent. Under the former of these heads the increase is due to the results in the Assam Valley, the figures being as follows :

District.	Contracts cancelled for permanent incapacity under section 122 of the Act.		Contracts cancelled by mutual consent.	
	1890.	1891.	1890.	1891.
Cachar	25	...	4	38
Sylhet	51	10	2	2
Kámrúp	1	1	3	2
Darrang	8	23	11	35
Nowgong	5	51	6	5
Sibságar	85	144	35	9
Lakhimpur	145	414	12	47
Total	320	643	73	138

It will be seen that the number of contracts cancelled on the ground of the permanent incapacity of the labourers increased considerably in all districts of the Assam Valley except Kámrúp, the increase being especially marked in Lakhimpur. The Chief Commissioner cannot find any sufficient explanation of this result, unless it be the fact that contractors' coolies of bad physique were supplied in larger numbers than during the previous year.

The extent to which the second paragraph of section 121 and section 170 of Act I of 1882 are acted upon.

23. The Deputy Commissioner of Cachar reports that no case occurred during the year under the second paragraph of section 121, and that as regards section 170, although 11 managers sent in lists of absentees, in no case was the Inspector asked to endorse the days of absence on the contracts. He adds :

In practice I believe some managers get coolies to work off absences without their being endorsed on the contracts, and so long as the coolies do this willingly, I do not see that there can be any objections. Most managers, however, disregard these absences, treating their contracts merely as a means to prevent and punish absconding.

In Sylhet no use was made of the provisions of section 121 or section 170 during the year under report, and the same was the case in Kámrúp. In Darrang 13 gardens submitted lists of absentees under section 170, and two managers requested the Inspector to endorse days of absence on some contracts. In Nowgong no use was apparently made of section 121, but monthly lists were sent in by some gardens under section 170.. These lists were examined by the Inspector on his visits to the gardens, and, after necessary enquiry, the days of absence were endorsed on the contracts. In Sibságar no use was made of the provisions of section 121 ; but as regards section 170, the Deputy Commissioner writes :

Forty-eight gardens sent in the list of absentees under section 170, *viz.*,—

Sibságar	15
Jorhát	21
Golághát	12
	48

A tendency is being evidenced on the part of the employers to insist on the provisions of section 170 of Act I of 1882 being carried out by Inspectors. I have made a reference to the Commissioner on certain cases. If it be decided that a manager loses his remedy by not insisting on contracts being endorsed at the visits of inspection, it will very soon be the rule, and not the exception, to enforce section 170. A moment's consideration will show all that such a practice will involve. Managers do not insist on their rights, as coolies generally work off absent days without the Inspector's interference ; and I am of opinion that if the law were so worded that absent days could be endorsed at any time not less than a fixed period (say, two months) before the expiry of a contract, there would still be an adequate remedy with the employer, while the work of Inspectors would still remain light enough to be coped with.

In Lakhimpur no cases occurred under section 121. Fourteen gardens in the sadr subdivision sent in lists of absentees under section 170, but no manager insisted on the periods of absence being endorsed on contracts. In the case of one garden in the North Lakhimpur subdivision 176 contracts were endorsed under this section, the coolies having admitted the correctness of the periods added to their contracts.

Repatriation of labourers.

21. In Cachar no labourers were repatriated during the year under report. In Sylhet, of the 10 coolies whose contracts were cancelled on the ground of permanent incapacity, 5 coolies with their 6 children were repatriated at a cost to Government of Rs. 64-11-4 over and above their three months' wages paid by the managers. The rest remained on the gardens as dependents on their relatives. In Kámrúp, the labourer (a woman) whose contract was cancelled will be repatriated in due course. Owing to the fact of her being blind, it was necessary to wait until she could be taken charge of by a garden sardár. In the meantime she has been permitted to remain on the garden. Of the 23 coolies whose contracts were cancelled in Darrang, 21 were sent back to their homes and 2 absconded from the charitable dispensary, having probably found friends. In Nowgong, of the 51 labourers whose contracts were cancelled, 29 were sent back to their homes with the usual three months' wages, 21 were allowed at their own request to remain on the gardens with their relatives and friends, and 1 died before repatriation could be effected. Of the 144 coolies whose contracts were cancelled in Sibságar, 2 died and 14 remained in the district, 1 was sent to the Lunatic Asylum at Tezpur, and 122 were sent back to their homes with three months' wages, an aggregate sum of Rs. 178-1-9 having been paid by Government towards the cost of repatriation. In the case of 5 coolies no wages were paid, but the manager undertook to send them to their country. Of the 414 coolies whose contracts were cancelled in Lakhimpur, 260 were sent to their homes. In all cases in the Lakhimpur district the managers paid the usual three months' wages, amounting to Rs. 406-3, the difference of Rs. 1,026-9 between this and the actual expenses incurred being borne by the public funds. Besides these, a large number of children and three persons whose contracts were cancelled by mutual consent were also sent back to their country. In three cases disabled free labourers were repatriated at the expense of Government. The cost of sending down coolies whose contracts were cancelled by mutual consent was borne by the employers.

Wages.

25. The following two statements give particulars of the wages earned by Act labourers and non-Act coolies, including children, in each subdivision. They are based on figures obtained during inspections of gardens. In the second table the average and highest wages are given, both in the manufacturing and the non-manufacturing seasons.

			Monthly wages.					
			Average.			Highest.		
			Rs.	a.	p.	Rs.	a.	p.
Cachar ...	Act ..	Men ...	4	9	2	8	2	6
		Women ...	3	4	6	7	3	0
	Non-Act ...	Men ...	4	12	9	9	3	5
		Women ...	3	10	3	7	6	4
		Children ...	1	9	7	4	3	3
North Sylhet ...	Act ...	Men ...	3	12	4	5	6	3
		Women ...	2	12	6	4	0	4
	Non-Act ...	Men ...	4	4	5	6	4	6
		Women ...	3	4	8	5	8	6
		Children ...	1	9	5	3	10	0
South ,, ...	Act ...	Men ...	4	2	9	5	10	4
		Women ...	3	4	8	4	6	3
	Non-Act ...	Men ...	4	13	8	6	13	4
		Women ...	3	10	8	4	14	5
		Children ...	1	12	9	3	7	7
Karimganj ...	Act ...	Men ...	3	13	2	4	15	2
		Women ...	2	8	6	3	11	3
	Non-Act ...	Men ...	4	6	0	8	5	1
		Women ...	3	6	4	6	9	10
		Children ...	2	6	11	5	2	3
Habiganj ...	Act ...	Men ...	3	0	1	10	13	4
		Women ...	2	11	5	8	3	7
	Non-Act ...	Men ...	3	5	9	14	1	5
		Women ...	2	11	9	12	13	7
		Children ...	1	4	8	6	4	0
Kámrúp ...	Act ...	Men ...	3	13	2	6	6	10
		Women ...	3	5	0	6	6	2
	Non-Act ...	Men ...	4	4	11	8	1	3
		Women ...	3	12	6	7	13	1
		Children ...	2	7	0	4	9	2

			Monthly wages. Average. Rs. a. p.	Highest. Rs. a. p.
Darrang	Act	Men	4 15 9	11 8 0
		Women	4 10 2	17 4 0
	Non-Act	Men	4 9 10	12 0 0
		Women	4 7 2	17 4 0
		Children	3 11 4	8 2 0
Nowgong	Act	Men	4 12 10	10 12 0
		Women	3 14 7	10 8 0
	Non-Act	Men	5 4 11	13 15 0
		Women	4 12 0	13 5 9
		Children	2 14 8	8 13 6
Sibságar	Act	Men	4 15 6	15 5 6
		Women	3 15 1	10 8 0
	Non-Act	Men	5 0 11	16 0 0
		Women	4 11 11	15 3 3
		Children	2 6 7	8 6 6
Lakhimpur	Act	Men	5 1 0	15 4 5
		Women	4 1 0	17 2 8
	Non-Act	Men	6 15 10	21 0 0
		Women	5 7 9	20 13 0
		Children	2 12 11	8 0 0

—			Non-manufacturing, or cold season monthly wages. Average. Rs. a. p.	Highest. Rs. a. p.	Manufacturing, or rainy season monthly wages. Average. Rs. a. p.	Highest. Rs. a. p.
Cachar	Act	Men	4 3 8	6 9 9	4 10 9	10 1 1
		Women	2 10 7	5 12 3	3 9 10	8 3 5
	Non-Act	Men	4 12 3	8 2 5	5 13 2	11 11 7
		Women	3 5 2	6 14 4	4 8 9	9 7 2
		Children	1 4 7	3 7 2	2 2 9	5 3 6
North Sylhet	Act	Men	3 12 4	5 4 4	3 12 5	5 9 3
		Women	2 11 4	3 15 5	2 13 11	4 1 4
	Non-Act	Men	4 4 1	6 10 1	4 4 9	7 5 11
		Women	3 2 5	4 11 3	3 6 11	6 5 10
		Children	1 4 2	3 6 6	1 15 8	3 13 11
South „	Act	Men	3 14 7	5 9 9	4 7 0	5 11 0
		Women	2 15 5	4 5 6	3 10 0	4 7 0
	Non-Act	Men	4 10 3	6 15 9	5 11 1	6 10 11
		Women	3 5 0	4 9 1	4 0 5	5 3 10
		Children	1 10 5	3 4 7	1 15 2	3 10 8
Karimganj	Act	Men	3 7 10	5 1 10	3 2 7	4 12 6
		Women	2 10 8	3 12 3	2 6 5	3 10 4
	Non-Act	Men	4 8 9	7 1 11	4 3 3	8 8 4
		Women	3 5 4	5 3 1	3 7 4	8 8 8
		Children	2 7 9	4 9 9	2 6 1	5 10 9
Habiganj	Act	Men	2 10 2	13 1 3	3 13 8	8 9 6
		Women	2 12 10	6 4 9	2 12 11	10 2 6
	Non-Act	Men	3 4 10	14 8 6	4 2 8	13 11 4
		Women	2 1 3	8 11 6	3 3 1	17 1 9
		Children	0 10 6	4 5 9	1 7 1	9 2 3
Kámrúp	Act	Men	3 11 8	6 1 1	3 14 7	6 6 10
		Women	2 14 3	5 0 2	3 11 9	6 6 2
	Non-Act	Men	4 1 10	6 10 4	4 8 0	8 1 3
		Women	3 2 11	5 1 5	4 6 0	7 13 1
		Children	2 4 0	3 7 8	2 10 0	4 9 2
Darrang	Act	Men	4 11 4	11 6 6	5 2 1	11 8 0
		Women	3 7 11	14 5 0	4 5 3	17 4 0
	Non-Act	Men	5 3 9	12 0 0	5 9 9	11 11 0
		Women	3 1 3	10 6 9	4 0 5	17 4 0
		Children	1 15 3	6 1 2	2 10 6	8 2 0
Nowgong	Act	Men	4 3 1	8 4 0	5 6 7	10 12 0
		Women	3 2 7	5 12 2	4 10 7	10 8 0
	Non-Act	Men	4 13 8	10 11 0	5 12 3	13 15 0
		Women	3 10 3	5 15 0	5 13 9	13 5 9
		Children	2 5 11	4 10 0	3 7 5	8 13 0
Sibságar	Act	Men	4 9 4	13 0 0	5 5 7	15 5 6
		Women	3 8 11	10 0 0	4 5 4	10 8 0
	Non-Act	Men	5 3 4	13 0 0	4 14 6	16 0 0
		Women	3 5 7	10 0 0	4 2 3	15 3 3
		Children	2 3 5	7 0 0	2 9 9	8 6 6
Lakhimpur	Act	Men	4 8 8	9 15 0	5 9 5	15 14 5
		Women	3 9 3	10 9 0	4 8 9	17 2 8
	Non-Act	Men	6 9 8	21 0 0	7 6 7	20 0 0
		Women	4 12 11	15 0 0	6 2 7	20 13 0
		Children	2 7 9	5 0 0	3 2 2	8 0 0

CHAPTER IV.

OFFENCES, INCLUDING DESERTIONS.

26. The following figures show the offences committed by the tea garden population during each of the past two years under Act XIII of 1859 and Act I of 1882, respectively (excluding desertions, which are separately dealt with) :

Offences committed by tea garden population.

District.	Act XIII of 1859		Act I of 1882. Section 151, garden sardár failing to report himself.		Section 153, garden sardár failing to comply with instructions endorsed on way-bills.		Section 163, employers refusing or omitting to keep registers, &c.		Section 164, employers or other persons obstructing inspection under section 114.		Section 168, employers neglecting to provide hospital accommodation.		Section 171, labourers absent without cause.		Section 172, not taking deserters to police station.		Section 176, employers arresting labourer without sufficient cause.		Section 178, labourer guilty of habitual drunkenness or wilful disregard of sanitary regulations.		Section 183, enticing away, harbouring, or employing labourer under contract.		Section 185, employer refusing to endorse labour contract, &c.		Total.	
	1890.	1891.	1890.	1891	1890.	1891	1890	1891	1890.	1891.	1890	1891.	1890.	1891	1890	1891	1890	1891	1890	1891.	1890	1891.	1890.	1891	1890.	1891.
Cachar	68	71	..	1	..	..	7	..	..	..	1	..	..	1	..	..	..	..	..	..	7	5	1	..	16	7
Sylhet	23	12	..	..	..	..	1	..	..	..	..	..	.	..	..	.	..	..	..	..	8	11	..	..	9	11
Kámrúp ..	5	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
Darrang ..	10	2	7	4	..	..	..	..	..	..	..	..	8	37	1	.	..	..	..	..	4	1	..	..	20	42
Nowgong ..	6	2	..	4	..	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..	3	2	..	..	13	6
Sibságar ..	55	37	6	2	..	..	..	..	..	..	..	..	13	5	..	..	..	..	1	1	14	13	..	..	34	21
Lakhimpur ..	17	6	7	7	..	..	1	..	..	..	..	..	3	24	..	.	..	..	2	..	10	9	..	..	23	40
Total . ..	174	134	20	18	..	..	9	..	..	..	1	..	34	67	1	..	..	..	3	1	47	41	1	..	116	127

The above figures show that while offences under Act XIII of 1859 have decreased, as compared with the previous year, in every district except Cachar, offences under Act I of 1882 have increased in the districts of Sylhet, Darrang, and Lakhimpur, and have decreased in Cachar, Kámrúp, Nowgong, and Sibságar.

As regards Act XIII of 1859, the Deputy Commissioner of Cachar reports that of the 71 coolies convicted 65 were ordered to perform their contracts, and presumably did so, as nothing further was heard of these cases, while 6 of the accused were punished, 2 with two and 4 with one week's rigorous imprisonment each. Of the 12 coolies convicted in Sylhet, 9 were ordered to perform their contracts, 2 were imprisoned for two weeks each, and 1 for twenty days. In Kámrúp 3 coolies were ordered to fulfil their agreements, and 1 was sentenced to five days' imprisonment. The 2 coolies accused under the Act in Darrang were ordered to perform their agreements. In Nowgong 1 coolie was sentenced to two weeks' rigorous imprisonment and to pay a fine of Rs. 10, and in the second case the coolie was ordered to work out his agreement. Of the 37 persons convicted in Sibságar, 25 were ordered to fulfil their contracts, 8 were ordered to pay their advances, 3 to pay for the work to be done, and one man who was ordered by the Court to complete his work according to agreement, but who, instead of so doing, absconded, was punished with rigorous imprisonment for one month. In Lakhimpur the coolies were in all cases ordered to return to the gardens and fulfil the terms of their contracts. As regards Act I of 1882, a considerable increase is observable in the cases under section 171 (absence without cause) in the Darrang and Lakhimpur districts, but it is scarcely necessary to mention the punishments inflicted. None of the cases possessed any special interest; and so far as the Chief Commissioner is able to judge from the district reports, in no case was the punishment inflicted unduly severe.

The statement in the next page shows the offences against the general criminal law committed during each of the past two years by the population of tea gardens.

District.	Penal Code.																				
	Adultery.	Unlawful assembly and affray.	Rioting.	Culpable homicide or attempt to commit culpable homicide.	Murder.	Attempt to commit suicide.	Assault.	Causing hurt.	Grievous hurt.	Theft.	Criminal trespass.	Lurking house trespass.	House trespass.	House-breaking.	Dishonest misappropriation.	Dishonestly receiving stolen property.	Criminal intimidation.	Cheating.	Mischief.	Criminal misappropriation.	Criminal breach of trust.	Laying false complaint.
Cachar	..	27	28	..	..	..	24	2	12	34	5	..	4	..	..	4	..	..	2	..	1	..
Sylhet	..	4	41	..	2	5	11	11	2	13	2	..	..	..	..	..	1	..	3	..	2	..
Kámrúp	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..
Darrang	..	11	18	..	..	..	1	1	1	14	2	2	..	..	..	..	..	..	..	..	..	..
Nowgong	..	..	..	..	..	..	..	..	1	..	..	3	2	..	..	1	..	..	..	..	..	..
Sibságar	1	5	..	2	..	..	14	11	2	53	..	4	4	2	..	15	..	2	2	..	2	..
Lakhimpur	..	..	19	..	..	2	16	2	3	46	1	..	9	..	..	4	4	..	4	5	2	1
Total of 1891	1	47	106	2	2	7	66	27	22	160	10	11	19	2	..	25	5	2	11	5	7	1
„ „ 1890	..	71	65	6	6	9	55	27	20	118	3	20	10	9	3	39	..	2	3	..	6	6

District.	Penal Code—*continued.*																				
	Giving false evidence.	Counterfeit coin.	Unnatural offences.	Insult.	Wrongful confinement.	Offences against public tranquillity	Contempt of lawful authority.	Escaping from lawful custody.	Dealing with fire, &c., so as to endanger human life, section 285.	False prosecution.	Defamation, section 500.	Negligent act likely to spread infection.	Causing death by rash act.	Forgery.	Enticing away a married woman.	Kidnapping.	Rape.	Total.	Act V of 1861	Offences under other Acts.	Grand total of all offences.
Cachar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	144	27	..	171
Sylhet	2	1	..	..	..	..	11	..	..	..	..	..	..	..	..	..	..	111	1	13	125
Kámrúp	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	3
Darrang	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	51	..	4	55
Nowgong	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	10	..	..	10
Sibságar	1	..	..	6	2	2	..	2	..	..	..	..	..	2	..	..	..	124	1	5	140
Lakhimpur	..	1	..	1	..	..	3	..	..	1	..	..	..	..	..	..	..	124	10	26	160
Total of 1891	3	3	..	7	2	2	15	3	..	1	..	..	..	2	1	..	..	577	45	48	670
„ „ 1890	1	2	1	2	1	..	2	3	1	..	1	..	4	..	1	1	1	499	60	44	603

This table shows an increase of criminality in the districts of Sylhet, Kámrúp, Darrang, Sibságar, and Lakhimpur, and a decrease in Cachar and Nowgong. The chief heads under which the increase occurred were 'Rioting' (from 65 to 106 cases), 'Assault' (from 55 to 66 cases), 'Theft' (from 118 to 160 cases), and 'Contempt of lawful authority' (from 2 to 15 cases). The decrease in cases under 'Unlawful assembly' (from 71 to 47) is satisfactory; but the Chief Commissioner regrets to notice the increase in the number of riots which occurred during the year under report. The cases of rioting are further noticed in Chapter VII of this report.

The cases of murder and culpable homicide, which occurred in the districts of Sylhet and Sibságar, do not call for special remark.

The following table, which includes cases of desertion, compares the ratio of convictions to tea garden population during the past two years:

District.	Mean adult garden population.		Number convicted of any offence.		Number sent to prison (Jail Report).		Ratio per cent. of imprisonments to convictions.	
	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.
Cachar	55,463	57,392	394	330	152	132	38	40
Sylhet	50,198	53,241	139	176	101	135	72	76
Kámrúp ...	2,038	2,286	22	28	19	25	86	89
Darrang ...	29,699	32,247	171	292	157	279	91	95
Nowgong ...	10,020	10,685	83	38	56	25	67	65
Sibságar ...	56,225	58,772	402	407	268	274	66	67
Lakhimpur ...	46,467	50,689	401	458	330	371	82	81
Total	250,113	265,314	1,612	1,729	1,083	1,241	67	71

The increase in convictions in the Darrang district is noteworthy, and is explained by the increase which took place under the heads of 'Unlawful Assembly' 'Rioting', and 'Theft'. So far as the two former of these offences are concerned, this increase is commented upon in Chapter VII of this report.

27. The following table shows the number of adult desertions, district by district, for the past two years :

Provincial and district figures for desertions.

District.	Total desertions among adults.		Act.		Non-Act.		Percentage of desertions on annual strength among					
							Act.		Non-Act.		Total adult population.	
	1890.	1891.	1890.	1891.	1890.	1891	1890.	1891.	1890.	1891.	1890.	1891.
Cachar	2,973	2,994	600	675	2,373	2,319	6·58	8·82	5·12	4·66	5·35	5·21
Sylhet	3,004	3,024	635	546	2,369	2,478	6·72	6·85	5 80	5·48	5·98	5·68
Kámrúp	158	195	80	75	78	120	11·98	9·46	5·66	8·10	7·75	8·58
Darrang	1,259	1,067	585	748	674	319	3 21	3·56	5·84	2·83	4 24	3·3
Nowgong	370	314	142	130	228	184	4 58	3·54	3·30	2·61	4·69	2·93
Sibságar	1,524	1,576	789	995	735	581	2·27	2·67	3·42	2·67	2·71	2·68
Lakhimpur	1,479	1,510	1,051	1,154	428	356	4·00	3·78	2·11	1·74	3·18	2·97
Total	10,767	10,680	3,882	4,323	6,885	6,357	3·82	3·97	4·62	4·05	4·30	4·02

The Chief Commissioner is glad to notice that the general percentages of desertions show a decrease, though only small, in the case of every district except Kámrúp, with the result that the provincial percentage has fallen from 4·30 in the previous year to 4·02 in the year under report. Under the head of 'Act labourers', however, an increase in the number of desertions took place in the districts of Cachar, Darrang, Sibságar, and Lakhimpur, and the provincial percentage, as regards this class of labourers, has slightly advanced (from 3·82 to 3·97). The larger importations of labour during the year under report naturally account for this increase in desertions.

28. The following table shows the number of desertions in each district, the number of warrants issued for the arrest of the deserters and the number of convictions obtained :

Arrests and convictions.

District.	Number deserted (Act labourers).	Number of warrants issued.	Number arrested.					Number convicted.
			By warrant.	By manager	By police.	By summons.	Total.	
Cachar	675	90	16	61	6	...	83	81
Sylhet	546	151	12	26	.....	...	38	31
Kámrúp	75	8	.....	18	3	...	21	21
Darrang	748	206	90	127	.....	2	219	195
Nowgong ...	130	8	.....	20	1	1	22	20
Sibságar	995	103	67	166*	18	...	251	203
Lakhimpur ...	1,154	64	33	229	.....	...	262	246
Total of 1891 ...	4,323	630	218	647	28	3	896	797
„ „ 1890 ...	3,882	586	293	448	87	10	838	758

In a circular, dated the 5th February 1892, Deputy Commissioners and subdivisional officers were directed to embody in their reports full particulars of desertions and of the punishments inflicted for desertions from gardens on the unhealthy list, and further to be careful to exercise the greatest consideration in dealing with coolies who desert from unhealthy gardens under the influence of panic. These instructions have been fairly well observed by all Deputy Commissioners, and the present report contains, as a rule, full information regarding the gardens from which the desertions took place and the punishments inflicted.

Of 675 coolies who deserted in the Cachar district, 83 were arrested and 81 were convicted. Of these 81, 11 only belonged to unhealthy gardens. The punishments inflicted on the remaining 70 were as follows :—3 were imprisoned for two months, 1 for six weeks, 18 for one month, 34 for two weeks, 7 for one week, and 7 for one day only.

* Includes 3 voluntarily.

The total number of desertions from unhealthy gardens, that is, gardens on which the number of deaths during the year was 10 or more, and on which the death rate exceeded 7 per cent. in this district is given as 255 ; but of the coolies arrested in these cases, only 11 were convicted, the following being the punishments inflicted :—9 coolies were sentenced to one month's rigorous imprisonment, 1 to two weeks' rigorous imprisonment, and 1 to rigorous imprisonment for one week. On this subject the Deputy Commissioner observes :

Though several of the gardens from which desertions took place appear on the high mortality list this year, they are not, properly speaking, unhealthy. Small-pox, cholera, and influenza account for many gardens appearing in the high mortality list. A very small number of convictions were obtained. Many planters do not prosecute coolies for desertion except in a few cases where they think an example necessary. In this they are actuated partly by a wish to save themselves trouble, and in many cases also by disinclination to be hard on their coolies. In this I think they are right. A few prosecutions as examples do as well as a great many. Besides, few managers can spare twenty or thirty coolies for a month at a time, at all events in the busy season. With reference to the orders in the Chief Commissioner's Circular letter No. 700 19J., dated the 14th March 1891, it appears from the records of the eleven cases referred to above that all the accused pleaded guilty, and made no special statements as to the cause of desertion. In no single instance did the deserters allege the unhealthiness of the garden as an excuse for deserting.

Of 546 Act coolies who were returned as having deserted in the Sylhet district, 38 only were arrested and 31 were convicted, of whom 1 was imprisoned for one hour, 1 for one day, 2 for one week each, 1 for eight days, 13 for ten days each, 6 for two weeks each, 6 for three weeks, and 1 for one month. Of the 31 coolies thus convicted of desertion, 17 deserted from five gardens, of which 2 were unhealthy in 1890, 1 was unhealthy in 1891, and 2 were unhealthy both in 1890 and 1891. The coolies convicted of desertion from unhealthy gardens were sentenced as follows :—1 to one day's simple imprisonment, 11 to ten days' rigorous imprisonment, 4 to fourteen days' rigorous imprisonment, and 1 to rigorous imprisonment for three weeks. In the Kámrúp district of 75 Act coolies who deserted, 21 were arrested, the whole of whom were convicted and sentenced to rigorous imprisonment—2 for one week, 1 for ten days, 2 for two weeks, 9 for three weeks, 6 for one month, and one for six weeks. Of the 75 Act coolies who deserted, 60 are returned as having deserted from five unhealthy gardens. Of these 60, 18 were convicted and sentenced to rigorous imprisonment—2 for seven days, 1 for ten days, 9 for three weeks, 5 for one month, and 1 for six weeks. Of the five unhealthy gardens from which the desertions took place, one has been on the unhealthy list since 1888, three were unhealthy in 1890, and one was healthy in 1890, but appears on the unhealthy list for the year under report. Of the 748 Act coolies who deserted in the Darrang district, 219 were arrested and 195 were convicted, of whom all, with the exception of 15 who were ordered to return to the garden to fulfil their contracts (the manager not wishing them to be sent to prison), were sentenced to rigorous imprisonment as follows :—64 for one month, 10 for three weeks, 39 for two weeks, 38 for one week, and 29 for ten days. Of the total number who deserted, 191 are returned as having deserted from 15 unhealthy gardens, of these, 29 were convicted, of whom 16 were sentenced to one month's rigorous imprisonment, 5 to two weeks' imprisonment each, and 8 to one week's imprisonment each.

In connection with this matter the Deputy Commissioner of Darrang writes :

In none of these cases was it shown that desertion was in any way due to the unhealthiness of the garden. The unhealthiness of an estate is of course never pleaded as an excuse for desertions, but in trying coolies I always bear the fact of unhealthiness in mind.

In the Nowgong district, of the 130 Act coolies who deserted, 22 were arrested, and 20 were convicted and sentenced to rigorous imprisonment as follows :—4 for one week, 6 for two weeks, 5 for fifteen days, 1 for three weeks, 2 for one month, and 2 for six weeks. The number of desertions returned from unhealthy gardens in this district was 63, but punishments were inflicted in only 6 of these cases, 6 of the deserters being sentenced to rigorous imprisonment as follows :—4 for fourteen days, 1 for three weeks, and 1 for six weeks. In the Sibságar district, of 995 Act labourers who deserted, 251 were arrested, and 203 were convicted, of whom 4 were sentenced to simple imprisonment, 2 for 7 days and 2 for one day each, and the rest to rigorous imprisonment as follows :—8 for one day each, 2 for three days, 41 for one week, 1 for eight days, 3 for ten days, 1 for twelve days, 41 for two weeks, 17 for fifteen days, 22 for three weeks, 60 for one month, 1 for five weeks, and 2 for six weeks. The number of deserters from unhealthy gardens is returned as 200 (from twelve gardens), and of these 23 coolies were sentenced to rigorous imprisonment as follows :—4 for one week, 2 for two weeks, 6 for fifteen days, 5 for three weeks, 6 for one month, 1 coolie was sentenced to one day's simple imprisonment. In the Lakhimpur district, of 1,154 Act labourers who deserted,

262 were arrested, and 246 were convicted and sentenced to imprisonment as follows:—25 for one day, 4 for three days, 3 for five days, 20 for seven days, 30 for ten days, 42 for fourteen days, 51 for fifteen days, 40 for twenty-one days, 25 for one month, 1 for forty-two days, 1 for forty-five days, 2 for two months. Two persons were simply ordered to go back to the gardens. The number of deserters from unhealthy gardens is returned as 203 (from ten gardens); and of these, 47 coolies, including the deserters of the previous year, were sentenced to rigorous imprisonment as follows:—1 for one day, 1 for three days, 13 for seven days, 12 for fourteen days, 7 for fifteen days, 2 for twenty-one days, 9 for one month, 1 for six weeks, 1 for two months.

The following statement gives in a tabular form some interesting particulars regarding desertions amongst Act labourers:

District.	Number who deserted during 1891.	Number who were arrested.	Percentage of number arrested to number who deserted.	Number convicted.	Percentage of number convicted to number who deserted.	Number who deserted from unhealthy gardens, that is gardens on which the number of deaths during the year was 10 or more and on which the death rate exceeded 7 per cent.	Percentage of number who deserted from unhealthy gardens to total number who deserted.	Number of deserters from unhealthy gardens who were convicted and punished.	Percentage of number of deserters from unhealthy gardens who were convicted to total number of deserters from such gardens.
1	2	3	4	5	6	7	8	9	10
Cachar ...	675	83	12·3	81	12·0	255	37·7	11	4·3
Sylhet ...	546	38	6·9	31	5·7	17	3·1	17	100·
Kámrúp ...	75	21	28·0	21	28·0	60	80·0	18	30·0
Darrang ...	748	219	29·2	195	26·1	191	25·5	29	15·2
Nowgong ...	130	22	16·9	20	15·4	63	48·4	6	9·5
Sibságar ...	995	251	25·2	203	20·4	200	20·1	24	12·0
Lakhimpur ...	1,154	262	22·7	246	21·3	203	17·5	47	23·1
Total ...	4,323	896	20·7	797	18·4	989	22·8	152	15·3

The above figures show what a small proportion of the Act labourers who deserted were arrested and convicted, and there is no doubt that in the very large majority of cases the matter is settled between the manager and the deserters without recourse to the Courts. The figures also show the generally small proportion of desertions which take place from unhealthy gardens. As regards the punishments inflicted, the Chief Commissioner has no reason to suppose that excessive sentences are generally imposed, or that officers trying such cases fail to exercise discrimination. At the same time it is of course most desirable that the circumstances of each case should be carefully enquired into, and that allegations, if made by the accused, of desertion on account of such reasons as the unhealthiness of the garden, non-payment of wages, overwork, insufficient food, and the like should always be sifted, and, if proved correct, should be allowed due weight. In connection with the punishments inflicted it must be remembered that the offence of desertion is one which is often repeated again and again by the same person and that the law (section 175 of Act I of 1882) expressly attaches higher penalties, up to a maximum of three months' imprisonment, to third and subsequent convictions.

Nationality and sex of deserters.

29. The nationality and sex of deserters are shown below :

Nationality.	Sex	Number of deserters.				Total.		Percentage of desertions on annual strength among					
		Act.		Non-Act.				Act labourers.		Non-Act labourers.		Total.	
		1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.
Bengal ...	Men ...	427	417	846	779	1,273	1,196	4·76	4·55	4·31	3·80	2·05	3·52
	Women.	209	210	634	650	843	860	2·49	2·38	3 32	3·28		
North Western Provinces and Oudh.	Men ...	609	532	1,454	1,353	2,063	1,885	8·26	11·93	7·36	8·63	6·59	7·85
	Women.	234	193	996	889	1,230	1,082	4·26	6 17	5·75	6·09		
Behar	Men ...	...	231	...	322	...	553	...	6·38	...	5·23	...	4·57
	Women.	...	84	...	184	...	268	...	2·99	...	3·43		
Chota Nagpur ...	Men ...	1,518	1,571	1,012	946	2,530	2,517	4·33	4·31	3·20	2·93	3·07	2·90
	Women.	544	578	797	694	1,341	1,272	1·78	1 80	2 77	2·35		
Nepal	Men ...	1	51	17	9	18	60	3·12	91·23	13·94	5·65	9·00	22·70
	Women.	...	13	5	3	5	16	...	61·90	6·29	3·18		
Madras ...	Men ...	85	134	49	36	134	170	6·4	6·44	4 62	2·85	4·23	3·30
	Women.	26	26	40	17	66	43	1·98	1·49	3·71	1·30		
Bombay ...	Men ...	...	1	4	5	4	6	...	2·63	3·04	3·21	2·16	2·76
	Women.	...	1	2	3	2	4	...	5·00	1·53	1·96		
Assam	Men ...	213	231	948	408	1,161	639	8·81	8·56	11·58	5·39	9·49	5·61
	Women.	16	50	81	59	97	109	2·01	4 82	4·31	3·05		
Orissa	Men ...	...	...	...	...	...	...	...	...	...	...	...	...
	Women.	...	...	...	...	...	...	...	...	...	...	...	...
Total	Men ...	2,853	3,168	4,330	3,858	7,183	7,026	5·19	5·41	5·38	4·59	5·29	4·93
	Women.	1,029	1,135	2,555	2,499	3,584	3,654	2·22	2·31	3·74	3·43	3·12	2·98
Grand total ...	.....	3,882	4,323	6,885	6,357	10,767	10,680	3·82	3·98	4·62	4·06	4 30	4·02

The above figures call for no remark, unless it be in regard to the increased tendency to desert displayed on the part of immigrants from Bengal, the North-Western Provinces and Oudh, and Nepal. As regards the Nepali immigrants, this result is explained in paragraph 12 of this report.

CHAPTER V.

VITAL STATISTICS AND HEALTH OF GARDEN POPULATION.

Birth rate.

30. The following figures show the birth rate per mille during the past two years, calculated on the mean strength of adult female labourers :

	1890.	1891.
Cachar	116·9	110·9
Sylhet	91·5	98·0
Kámrúp	110·9	85·5
Darrang	52·0	76·4
Nowgong	81·4	83·6
Sibságar	89·3	94·6
Lakhimpur	79·3	83·5
Total	89·8	94·2

These figures show results more nearly approximating to the truth than in the previous year for every district except Kámrúp. But there can be no doubt that the registration of births on tea gardens is still very defective, and the Chief Commissioner can only look to Inspectors to do all that lies in their power with a view to effect improvement. It is satisfactory to notice that in Darrang, where the rate was absurdly low in 1890, considerable improvement has taken place during the year under report though the rate for 1891 is still unduly low, and must point to very incomplete registration.

31. The following table distributes the births among the different nationalities, and strikes the ratio on the mean strength of adult female labourers :

Birth rate according to nationality.

District.	Bengal.			North-Western Provinces and Oudh.			Behar.			Chota Nagpur.			Nepal.		
	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.
Cachar	10,238	1,049	102·4	4,963	795	160·1	2,628	289	109·9	7,636	754	98·7	65	1	15 3
Sylhet	6,028	510	84·6	9,048	1,005	111·0	2,647	296	111·8	6,793	648	95·3	9	1	111 1
Kámrúp	539	48	89 0	36	2	55·5	4	1	250·0	435	33	75·8	1	..	....
Darrang	2,981	212	73·5	935	40	42·7	456	50	109 6	7,763	633	81·5	17	2	117·6
Nowgong	657	99	150·6	155	15	96·7	156	10	64·5	3,031	199	65·6	....	..	....
Sibságar	6,393	686	127·2	1,981	118	59·5	1,490	166	111·4	17,690	1,554	87·8	14	1	71·4
Lakhimpur	2,897	135	46 6	574	31	54·0	756	49	64·8	18,397	1,685	91·5	7	..	....
Total of 1891 ..	28,634	2,739	95·6	17,694	2,006	113·4	8,138	861	105·8	61,749	5,506	89·1	114	5	43·8
				North-Western Provinces, Oudh, and Behar.											
„ „ 1890 ..	27,387	2,271	82·9	22,779	2,524	110·8	....	....	....	59,142	5,132	86·7	100	5	50·0

District.	Madras.			Bombay.			Assam.			Orissa.			Total.		
	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.	Annual strength of women employed under Act I or otherwise.	Births.	Birth rate per mille.
Cachar	361	5	13·8	162	4	24 6	75	1	13·3	....	....	....	26,130	2,898	110·9
Sylhet	1,709	117	68·4	6	..	....	19	....	....	51	3	58 8	26,312	2,580	98 0
Kámrúp	18	....	....	....	..	....	89	12	134·8	....	....	....	1,122	96	85·5
Darrang	322	17	52 7	....	..	....	1,572	112	71·2	....	....	....	13,947	1,066	76·4
Nowgong	87	5	57·4	....	..	....	599	64	106·8	....	....	....	4,687	392	83·6
Sibságar	298	15	50·3	8	..	....	579	59	101·8	....	....	....	27,458	2,599	94 6
Lakhimpur	292	12	41·0	....	..	....	120	14	116·6	....	....	....	23,044	1,926	83 5
Total of 1891 ..	3,090	171	55·3	176	4	22·7	3,052	262	85 8	51	3	58·8	122,702	11,557	94·2
„ „ 1890 ..	2,259	118	52 2	188	3	21·7	2,676	236	88·1	42	4	95·2	114,527	10,293	89 8

32. The statistics of mortality in each district for each half-year separately are given in the table below, with the corresponding figures of the previous year :

Death rate for the year.

District.	Deaths among all classes of labourers, including children.						Ratio of deaths per mille.					
							Half-yearly.				Annual.	
	First half-year.		Second half-year.		Total.		First half-year.		Second half-year.			
	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.
Cachar	1,222	1,883	1,604	2,008	2,826	3,891	12·3	18·5	16 0	19·5	28·3	38·0
Sylhet	1,048	1,472	1,337	1,757	2,385	3,229	13·0	17·1	16·1	19·1	29·1	36·7
Kámrúp	159	130	149	100	308	230	49·2	39·0	48·0	27 5	97·2	66 5
Darrang	658	878	847	1,049	1,505	1,927	15·5	19 6	19·3	22·4	34·8	42 0
Nowgong	301	307	220	365	521	672	20·0	18·9	14·0	21·8	34·0	40·7
Sibságar	1,884	1,333	1,745	1,725	3,629	3,058	20·8	14·1	18·9	17·8	39·7	31·9
Lakhimpur	1,236	1,202	1,539	1,623	2,775	2,825	17·4	15·8	21·0	20·3	38·5	36 1
Total	6,508	7,205	7,441	8,627	13,949	15,832	16·2	17·1	18·1	19·7	34·3	36·8

It will thus be seen that the annual death rate for the year under report was higher than that for the previous year in the districts of Cachar, Sylhet, Darrang, and Nowgong, while it was lower in the districts of Kámrúp, Sibságar, and Lakhimpur. The increase in the rate of mortality is attributed to the particularly unhealthy character of the year, and especially to the prevalence of cholera during certain periods. The decrease in the rate, where it took place, has not been satisfactorily explained ; but except in the case of Kámrúp, where the figures are comparatively small, the rate recorded during the year under report may perhaps be regarded as fairly correct. At the same time the Chief Commissioner is quite unable to offer any explanation as to why the death rate in the case of Sibságar and Lakhimpur should show a reduction, while the rate in other important districts, both in the Surma and Assam Valleys, shows an opposite result.

33. The following table shows the mortality among both Act and non-Act adults during each of the past two years :

Death rate among adults.

District.	Number of deaths among adults.						Ratio per mille of deaths to annual strength.						Annual strength of total adult population of both Act and non-Act labourers.	
	Act.		Non-Act.		Total.		Act.		Non-Act.		Total.			
	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.
Cachar	545	633	1,180	1,776	1,725	2,409	60·3	83·2	25·4	35·7	31·0	41·8	55,463	57,392
Sylhet	535	390	1,129	1,756	1,665	2,146	57·0	49·2	27·5	38·5	33·0	40·1	50,198	53,241
Kámrúp	89	91	126	81	215	172	133·3	114·8	91·4	54·8	105·4	75·2	2,038	2,286
Darrang	910	1,040	306	342	1,216	1,382	49·6	49·2	26·5	30·3	40·9	42·5	29,699	32,248
Nowgong	154	208	231	270	385	478	49·8	57·0	33·4	38·1	38·5	44·7	10,020	10,685
Sibságar	1,837	1,561	738	527	2,575	2,088	52·8	41·8	34·2	24·2	45·7	35·4	56,225	58,772
Lakhimpur	1,582	1,493	580	614	2,162	2,107	60·1	49·1	28·6	29·9	46·8	41·4	46,467	50,689
Total	5,553	5,416	4,290	5,366	9,943	10,782	55·6	49·8	28·8	34·1	39·7	40·5	250,113	265,215

These figures show that the mortality rate amongst Act coolies decreased, as compared with the previous year, in all districts except Cachar and Nowgong, while the rate amongst non-Act coolies advanced in all cases except Kámrúp and Sibságar. The only explanation which can be offered of this result, bearing in mind the larger importations of unacclimatized Act labour which characterised the year, is an increased resort to the provisions of section 122 of Act I of 1882, which provides for the discharge of permanently incapacitated labourers with three months' wages. (See paragraph 22 of this report.)

The Deputy Commissioner of Cachar remarks as follows upon the increased mortality both amongst Act and non-Act coolies in that district :

The death rate among Act adults increased by 22·9 and that among non-Act adults by 10·3 per mille. The increase in the case of the former is partly due to the large importation during the year of North-Western Provinces, Oudh, and Behar labourers, who seem on most gardens to contribute a proportionately larger number both of deaths and desertions than any other nationality. The truth is that the bulk of the North-Western Provinces coolies who come here are low caste men,—Chamars, Bhars, and so on. Half starved in their own country, they have little or no stamina, and, like all North-Westers, they are bent on saving money, and seldom feed themselves well. I do not go so far as to say that this district is entirely unsuited for North-West labour. On some gardens they do very well, and if a better class were imported, I have little doubt they would do well enough on a good many more ; but as things are at present managed, North-West labour is not as a rule satisfactory. It is, however, cheap and easily procured, so that importations are likely to increase rather than to diminish.

34. The table below shows the recorded causes of deaths which occurred amongst Act labourers during each of the past two years :

Causes of deaths among Act coolies.

District.		Mean strength of Act labourers employed in 1891.		Deaths from						Total of columns 4 to 9.			Annual ratio of deaths per mille.
		First half-year.	Second half-year.	Cholera.	Dysentery	Jungle fever.	Dropsy.	Anæmia.	Other causes.	First half-year.	Second half-year.	Total.	
1		2	3	4	5	6	7	8	9	10	11	12	13
Cachar ...	*1891*	*8,020*	*7,399*	*133*	*108*	*113*	*23*	*44*	*212*	*216*	*417*	*633*	*83·2*
	1890	9,653	8,688	148	131	122	30	...	114	206	339	545	60·3
Sylhet ...	*1891*	*8,192*	*7,646*	*56*	*68*	*44*	*57*	*23*	*142*	*196*	*194*	*390*	*49·2*
	1890	9,551	9,256	71	112	53	90	15	195	239	297	536	57·0
Kámrúp ...	*1891*	*745*	*842*	*6*	*15*	*7*	*3*	*42**	*18*	*44*	*47*	*91*	*114·8*
	1890	652	681	9	9	47	...	...	24	40	49	89	133·3
Darrang ...	*1891*	*20,116*	*21,857*	*218*	*188*	*83*	*57*	*193*	*301*	*450*	*590*	*1,040*	*49·2*
	1890	17,614	18,802	69	202	134	86	134	285	367	543	910	49·6
Nowgong ...	*1891*	*3,488*	*3,770*	*56*	*31*	*8*	*6*	*27*	*80*	*88*	*120*	*208*	*57·0*
	1890	2,985	3,236	40	24	5	5	5	75	90	64	154	49·8
Sibságar ...	*1891*	*36,385*	*37,785*	*180*	*357*	*137*	*70*	*101*	*716†*	*651*	*910*	*1,561*	*41·8*
	1890	34,252	35,217	501	366	135	81	73	681	971	866	1,837	52·8
Lakhimpur ...	*1891*	*28,097*	*31,525*	*169*	*390*	*173*	*83*	*217*	*461*	*650*	*843*	*1,493*	*49·1*
	1890	25,658	26,803	259	348	107	75	167	626	693	889	1,582	60·1
Total of ...	*1891*	*105,943*	*110,825*	*818*	*1,157*	*565*	*299*	*647*	*1,030*	*2,295*	*3,121*	*5,416*	*49·8*
	1890	100,367	102,684	1,097	1,192	603	367	394	2,000	2,606	3,047	5,653	55·6
	1889	95,289	99,774	1,565	1,478	526	452	290	1,891	2,856	3,346	6,202	63·5

Taking the province as a whole, a decrease occurred under all heads of disease except 'Anæmia', the increase under which is doubtless due to the fact that the classification was more accurate than during the previous year. In only two districts of the province (Cachar and Nowgong) was the mortality rate higher than in the preceding year, the rate in Cachar having advanced from 60·3 per mille to 83·2, and in Nowgong from 49·8 per mille to 57·0. The number of deaths from cholera decreased in every district except Darrang and Nowgong, the decrease being especially marked in Sibságar and Lakhimpur.

Commenting on the returns for the district of Cachar, the Deputy Commissioner writes :

Taking the deaths separately for each cause of death, it will be seen that there has been a decrease in 1891 under all the causes except 'Anæmia' and 'Other causes' as compared with the previous year. During the year under report several of the gardens were visited by small-pox, which accounts for a good many of the deaths under 'Other causes'. Forty-four deaths from anæmia were, it will be seen, recorded during the year under report. All possible attention has been paid to this disease. The medical officers and managers of gardens have been fully instructed with regard to the symptoms and treatment of the disease, having been supplied with copies of Dr. Kynsey's and Dr. Giles' notes on the subject, and also personally instructed by the Civil Surgeon, and most of them are fully alive to the importance of the subject. *Thymol* has been freely used, and a beginning has been made to the introduction of a regular system of sanitation ; but it must, I fear, be many years before we can get a regular and complete system of sanitation in all gardens. Most managers appear to be afraid to attempt to introduce it. What they say is as a rule something as follows :—"If we insist on the coolies using latrines, they will simply leave the garden and go to other gardens where they are allowed to do as they please. There will always be some gardens which will not join us in doing anything of the kind." Then, also, they object on the ground of cost, but, as has been pointed out to them over and over again, the expenditure will be made up for by the improvement in the health and efficiency of their coolies. I think myself that if managers would only try, they would not find the difficulties so great as they anticipate.

In the same connection the Deputy Commissioner of Sylhet reports :

The managers of tea gardens provide good food and water, good medicines and hospitals for the sick ; but, notwithstanding this, the slovenly habits of the coolies, especially of the North-Westers, who form the great bulk of population on the tea gardens, neutralise all efforts to keep them in health. The subdivisional officer of Karimganj reports :—" The deaths occur far more amongst new coolies than among old and acclimatised coolies. It is not to be wondered at that the complete change of climate and diet should simply decimate the half-starved North-Westers. It may be said to be a case of kill or cure; if the man gets through his first year or so, he will probably develop into a far healthier man than he was on his arrival. As a rule, on arriving on a garden the North-Western Provinces coolies are in a miserable condition, and in spite of the utmost exertions of the managers, many of them die. It is now becoming the custom amongst

* Includes 36 deaths from *kala-azár*.

† " 67 " " influenza.

gardens importing labour from the North-Western Provinces to keep a kitchen from which food is dispensed regularly every day to new coolies. This system works well, and no doubt saves the lives of many coolies."

As regards the district of Darrang, where the mortality figures are largely swelled by increases under the heads of 'Cholera' and 'Anæmia', the Principal Medical Officer and Sanitary Commissioner remarks that on the occasion of his visits to unhealthy gardens in that district, the principal defects observed were (1) insufficient drainage and (2) non-clearance of jungle in the immediate vicinity of the coolies' dwellings. These remarks will be brought to the notice of the Deputy Commissioner.

In the case of Nowgong, which shows an increased mortality under every head of disease, no particular explanation is given ; but as regards *beri-beri*, or coolies' anæmia, the Deputy Commissioner writes :

All the managers were requested to supply me with a statement showing the efforts made by them to combat the disease (anæmia) and the success attending them. Only a few managers supplied me with the information. From these statements it appeared that all the cases of anæmia were treated with *thymol* with the greatest success. The inspecting officers, especially the civil medical officer, make it their chief aim when inspecting to pick out anæmia cases and point out to the managers the necessity of *thymol* treatment. Their names are recorded in the inspection reports. On the next inspection the Inspector makes enquiries as to these people. The hotel system of feeding weakly and anæmic coolies is also in existence in this district.

As regards *anchylostomiasis*, the Deputy Commissioner of Sibságar (Mr. Pittar) writes :

This matter now receives strict attention on all gardens which are inspected by the Civil Surgeon, or which employ a European medical officer. From a few figures I have been favoured with, I am inclined to think that about 80 per cent. of cases are treated successfully even now on the best managed gardens. On the other hand, I am not sure that gardens where there is no European medical supervision have made much progress. Dr. Banerji deals carefully with the question at all his inspections, and has, no doubt, effected much improvement. What I most complain of is that native doctors as a class lack interest in their work. It has often been observed at inspections that coolies who were evidently ill had never been seen by the doctor. Of course, managers do not encourage doctors to swell the sick list, though a large sick list means a small death list and *vice versâ*. A Doctor of Medicine, whose experience is valuable, had told me that from the well-ascertained fact that the disease does not run through houses and families, but appears in a scattered and irregular manner, he infers that the disease is very frequently contracted from drinking *hula* water, and the best preventive is sending out pure water to the coolies when out at work.

35. The table below shows the recorded causes of deaths among adult non-Act coolies during each of the past two years :

Causes of deaths among non-Act coolies.

District.		Mean strength of non-Act labourers employed in 1891.		Deaths from						Total of columns 4 to 9.			Annual ratio of deaths per mille.
		First half-year.	Second half-year.	Cholera.	Dysentery.	Jungle fever.	Dropsy.	Anæmia.	Other causes.	First half-year.	Second half-year.	Total.	
1		2	3	4	5	6	7	8	9	10	11	12	13
Cachar ...	*1891* ...	*48,812*	*50,554*	*378*	*262*	*383*	*65*	*31*	*657*	*885*	*891*	*1,776*	*35·7*
	1890 ...	45,606	46,978	239	149	273	49	3	467	601	579	1,180	25·4
Sylhet ...	*1891* ...	*44,010*	*46,634*	*281*	*359*	*293*	*234*	*50*	*539*	*727*	*1,029*	*1,756*	*38·5*
	1890 ...	40,151	41,438	135	236	182	111	11	454	496	633	1,129	27·5
Kámrúp ...	*1891* ...	*1,429*	*1,557*	*11*	*8*	*12*	*1*	*47**	*2*	*51*	*30*	*81*	*54·8*
	1890 ...	1,415	1,328	16	12	64	...	...	34	72	54	126	91·4
Darrang ...	*1891* ...	*11,257*	*11,266*	*136*	*42*	*40*	*33*	*45*	*46*	*186*	*156*	*342*	*30·3*
	1890 ...	11,599	11,384	15	49	43	25	30	144	160	146	306	26·5
Nowgong ...	*1891* ...	*7,017*	*7,095*	*38*	*22*	*60*	*0*	*8*	*133*	*134*	*136*	*270*	*38·1*
	1890 ...	6,831	6,989	72	22	37	13	3	84	146	85	231	33·4
Sibsagar ...	*1891* ...	*21,576*	*21,799*	*78*	*90*	*52*	*22*	*16*	*269†*	*271*	*256*	*527*	*24·2*
	1890 ...	21,533	21,448	232	103	57	29	18	299	439	299	738	34·2
Lakhimpur ...	*1891* ...	*20,148*	*20,708*	*57*	*125*	*55*	*35*	*75*	*267*	*271*	*343*	*614*	*29·9*
	1890 ...	20,192	20,281	90	81	61	32	25	291	311	269	580	28·6
Total of ...	*1891* ...	*154,249*	*159,014*	*979*	*908*	*895*	*399*	*272*	*1,913*	*2,525*	*2,841*	*5,366*	*34·1*
	1890 ...	147,328	149,847	799	652	717	259	90	1,773	2,225	2,065	4,290	28·8
	1889 ...	141,638	145,893	1,104	781	799	279	66	2,091	2,654	2,466	5,120	35·6

These figures show that there was a considerable increase of mortality amongst non-Act adult coolies during the year under report, and that taking the province as a whole, the increase was common to every head of disease. The increased mortality is especially noteworthy in the Surma Valley districts, the death rates in Cachar and Sylhet having advanced from 25·4 and 27·5 per mille in the previous year to 35·7 and 38·5 per

* Includes 45 deaths from *kála-azár*.
† " 14 " " influenza.

mille respectively. As regards the results in the district of Cachar, the Deputy Commissioner writes :

The year was an unhealthy one all round. In March, April, and May we had a bad outbreak of cholera. Following this came small-pox, and on the top of this many gardens were visitedby influenza. When, besides all this, I say that, owing perhaps to somewhat deficient rainfall and great heat, there was a great deal of fever almost throughout the year, it is scarcely to be wondered at that the results of the year are so bad. Thirty-one cases of anæmia were reported among non-Act labourers, so that if these figures be correct, this disease is much less common among free labour. As to why this should be so I am not at present prepared to offer an opinion.

The Deputy Commissioner of Sylhet had not been in charge of the district for a sufficient time to enable him to criticise the figures, but attention may be called to the extract given in the foregoing paragraph of this report.

In the Assam Valley, the mortality rate amongst non-Act coolies showed an increase in the districts of Darrang, Nowgong, and Lakhimpur, and a decrease in the districts of Kámrúp and Sibságar. Except in the case of Lakhimpur, where the increase in the death rate amongst non-Act coolies was small, these results correspond with those shown in paragraphs 32 and 33 under the head of 'General death rate and death rate amongst Act and non-Act adults'; but if the comparison is made between the death rate during the year under report amongst Act and non-Act coolies respectively, more or less marked variations become apparent. For these variations no sufficient reason can be assigned.

Death rate among children.

36. The statement below shows the death rate among children (that is, from birth to the age of 16 years) during each of the past two years :

District.	Mean strength of children in 1891.		Deaths from						Total of columns 4 to 9.			Total of 1890.	Annual ratio of deaths per mille.	
	First half-year.	Second half-year.	Cholera.	Dysentery.	Jungle fever.	Dropsy.	Anæmia.	Other causes.	First half-year.	Second half year.	Total.		1891.	1890.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Cachar	44,634	44,747	186	215	261	63	11	746	782	700	1,482	1,101	33·1	24·8
Sylhet	33,613	35,557	159	188	313	64	4	355	549	534	1,083	720	31·3	22·9
Kámrúp ...	1,152	1,227	5	8	17	...	23*	5	35	23	58	93	49·0	82·5
Darrang ...	13,405	13,677	108	96	106	53	28	154	242	303	545	289	40·1	21·5
Nowgong ...	5,654	5,830	21	31	52	2	3	85	85	109	194	136	33·6	25·5
Sibságar ...	36,223	37,195	71	201	208	29	22	439†	411	559	970	1,054	26·3	30·0
Lakhimpur ...	26,956	27,793	32	158	196	41	49	242	281	437	718	613	26·1	23·7
Total of 1891 ...	161,638	166,026	582	897	1,153	252	140	2,026	2,385	2,665	5,050	.....	30·7	...
" " 1890 ..	153,974	157,978	476	698	864	16	74	1,730	1,677	2,329	4,006	4,006	...	25·6

It will thus be seen that amongst children an increase in mortality occurred under every head of disease, though the death rates are generally in all probability still very far below the truth. The figures indeed are so incorrect as to render comment useless; but it is doubtless the case, as observed by the Deputy Commissioner of Darrang, that infant mortality is generally very severe in a year, like the year under report, when an unusually large influx of immigrants took place.

Order of demerit as regards death rate.

37. The following is the order of demerit of the various districts, both with regard to the mortality among the three different classes of the labour force and the total mortality :

District.	Order of mortality among			
	Act adults.	Non-Act adults.	Children.	Total.
Cachar	2	4	4	4
Sylhet	4	2	5	5
Kámrúp	1	1	1	1
Darrang	4	5	2	2
Nowgong	3	3	3	3
Sibságar	6	7	6	7
Lakhimpur	5	6	7	6

From the above figures it will be seen that Kámrúp is, as in the previous year the most unhealthy district whatever test may be applied. Sibságar and Lakhimpur

* Includes 17 deaths from *kala-azár*.
† " 41 " " influenza.

have improved their position considerably, whereas both Darrang and Nowgong have retrograded.

38. The statement below shows the mortality distributed according to nationality and gives figures for adults only :

Mortality according to country of origin.

Nationality.	Sex.	Deaths amongst adults of both classes.		Ratio per mille of deaths to annual strength.		Annual strength of adults of both Act and non-Act labourers.	
		1890.	1891.	1890.	1891.	1890.	1891.
Bengal ...	Men ...	859	927	29·0	32·1	55,919	58,273
	Women ...	763	947				
North-Western Provinces and Oudh.	Men ...	1,165	1,092	43·0	52·7	49,893	37,877
	Women ...		916				
Behar ...	Men ...		476		49·6		17,949
	Women ...	981	418				
Chota Nagpur ...	Men ...	2,976	2,752	45·0	41·1	125,756	130,623
	Women ...	2,689	2,622				
Nepal ...	Men ...	5	10	31·3	48·5	255	331
	Women ...	3	6				
Madras ...	Men ...	119	188	56·6	56·4	4,624	6,434
	Women ...	143	176				
Bombay ...	Men ...	2	3	14·3	16·5	278	365
	Women ...	2	3				
Assam ...	Men ...	167	148	17·6	18·3	13,295	13,344
	Women ...	67	97				
Orissa ...	Men ...	1	1	20·8	8·3	96	117
	Women ...	1	...				
Total ...	Men ...	5,294	5,597	39·0	39·2	135,586	142,618
	Women ...	4,649	5,185	40·5	42·2	114,527	122,702
Grand total ...	...	9,943	10,782	39·7	40·5	250,113	265,315

Taking the immigrants from the four main localities of recruitment, *i.e.*, Bengal, the North-Western Provinces and Oudh, Behar, and Chota Nagpur, it will be seen that the greatest proportionate mortality occurred amongst immigrants from the North-Western Provinces and Oudh, next comes Behar, then Chota Nagpur, and lastly Bengal.

39. The following statement shows the proportion of unhealthy gardens in each district. All gardens on which ten or more deaths have occurred and the death rate on which exceeds 7 per cent. were classed as unhealthy gardens :

Proportion of unhealthy gardens in each district.

District.	Number of gardens.		Number of unhealthy gardens.		Percentage of unhealthy gardens.	
	1890.	1891.	1890.	1891.	1890.	1891.
1	2	3	4	5	6	7
Cachar	187	187	12	25	6·5	13·4
Sylhet	115	118	11	12	9·5	10·2
Kámrúp	89	50	8	6	8·9	12·0
Darrang	89	89	9	15	10·1	16·8
Nowgong	61	59	5	8	8·1	13·5
Sibságar	215	224	27	12	12·5	5·4
Lakhimpur	151	145	15	11	9·9	7·6
Total	907	872	87	89	9·5	10·2

Thus the proportion of unhealthy gardens for the province as a whole shows an increase as compared with the previous year, and this increase was especially marked in the districts of Cachar and Darrang. On the other hand, there was a substantial and satisfactory decrease in Sibságar and to a less extent in Lakhimpur. As regards the figures generally, it has been explained in each of the provincial reports for the two preceding years that under the existing system, gardens on which ten or more deaths have occurred are held to be brought on the unhealthy list when either (1) the death rate for the garden population as a whole, or (2) the death rate amongst Act-I labourers, or (3) the death rate amongst non-Act labourers exceeds 7 per cent. As to this system, the Chief Commissioner would observe that although statistics regarding the health of labourers not recruited under Act I are doubtless interesting and instructive not only in themselves, but also for purposes of comparison with the statistics for Act labourers, estates can only be brought on the unhealthy list and dealt with under sections 130-132 of the Act when the death rate amongst labourers *imported under the Act* exceeds 7 per cent. In the following paragraphs each district will be taken up separately with reference to the inspection reports of Civil Surgeons (see Appendix A of this report) and with especial regard to the statistics in the case of gardens on the unhealthy list so far as Act labourers are concerned. As regards gardens classified as unhealthy on the garden population as a whole or on non-Act labourers only, but which are not unhealthy on Act labourers taken alone, it seems unnecessary to make detailed remarks, as action cannot be taken by the Chief Commissioner under the law. At the same time district officers and Inspectors are expected to do everything in their power with a view to induce managers of all gardens to remove defects and to adopt proper sanitary measures where it is shown that the death rate among non-Act labourers is excessive. The Chief Commissioner would also remark that he is not prepared to take action under section 132 of the Act in cases in which gardens, ordinarily healthy, are brought on the unhealthy list merely in consequence of the occurrence of an epidemic. It will be noticed that the form in which Civil Surgeons' report on unhealthy gardens varies, and that the reports in some cases are not sufficiently full. These defects will be remedied by the adoption of an amended form of inspection for unhealthy gardens, which is at present under the Chief Commissioner's consideration.

Unhealthy gardens in Cachar.

40. The following statements give particulars regarding the unhealthy gardens in Cachar, and show the causes of the deaths which occurred :

Unhealthy on Act Population.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Sadr ...	1. Dalucherra ...	51	47	4	12	16	78·4	255·3	333 7
	2. Myracherra ...	37	40	4	7	11	108·1	175·0	283·1
	3. Dulargram ...	318	269	7	16	23	22·0	59·4	81·4
	4. Tikalpar (Upper and Lower) and Salganga.	226	176	2	19	21	8·8	108 0	116·8
	5. Pathicherra ...	232	244	2	17	19	8·6	69·6	78·2
	6. Thailu ...	233	223	4	28	32	17·1	125·5	142 6
	7. Dewan ...	185	187	3	20	23	16·2	106·9	123·1
	8. Baladhan ...	97	46	5	6	11	51·5	130·4	181·9
	9. Palarband ...	146	131	2	10	12	13·6	76·3	89 9
	10. Rosekandi, Rosepur, and Etipur ...	171	204	5	22	27	29·2	107·8	137·0
	11. Kumbirgram ...	169	146	5	6	11	29·5	41·0	70·5
	12. Sonacherra ...	58	52	8	4	12	137·9	76·9	214·8
	13. Marticherra ...	144	151	5	8	13	34·7	52·9	87 6
Hailákandi.	14. Lalamukh or Hasiura ..	211	228	13	14	27	61·6	61·4	123·0
	15. Lalacherra ...	160	106	4	9	13	25·0	84·9	109·9
	Total	2,438	2,250	73	198	271	29·9	88·0	117·9

Causes of Deaths (Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr ...	1. Dalucherra	10	...	6	...	...	...	16
	2. Myracherra	...	5	1	...	...	5	11
	3. Dulargram	2	6	...	6	...	9	23
	4. Tikalpar (Upper and Lower) and Salganga	1	8	4	5	...	3	21
	5. Pathicherra	...	13	...	5	...	1	19
	6. Thailu	4	13	2	4	1	8	32
	7. Dewan	5	9	1	5	...	3	23
	8. Baladhan	...	...	1	1	...	9	11
	9. Palarband	...	6	...	3	...	3	12
	10. Rosekandi, Rosepur, and Etipur	3	3	...	...	17	4	27
	11. Kumbirgram	...	4	1	...	...	6	11
	12. Sonacherra	...	7	2	3	...	...	12
	13. Marticherra	5	6	1	...	...	1	13
Hailákándi.	14. Lalamukh or Hasiura ...	4	9	1	...	4	9	27
	15. Lalacherra ...	2	4	...	...	...	7	13
	Total...	36	93	20	32	22	68	271

Unhealthy on non-Act Population.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Sadr ...	16. Lakhipur... ...	234	252	22	2	24	94·0	7·9	101·9
	17. Dhuarband ...	552	558	51	18	69	92·3	32·2	124·5
	18. Noarband ...	401	403	28	3	31	69·8	7·4	77·2
	19. Dudpatli Tila ...	1,153	1,085	50	37	87	43·3	34·1	74·4
	20. Bandhu	213	215	5	16	21	23·4	74·4	97·8
	Total	2,553	2,513	156	76	232	61·1	30·2	91·3

Causes of Deaths (non-Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr ...	16. Lakhipur	9	4	1	...	...	10	24
	17. Dhuarband	37	6	3	...	1	22	69
	18. Noarband	21	5	...	2	...	3	31
	19. Dudpatli Tila	15	14	18	1	...	39	87
	20. Bandhu	...	2	10	4	...	5	21
	Total...	82	31	32	7	1	79	232

Unhealthy on Act and non-Act Population taken together.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Sadr ...	21. Dudpatli Bara and Chaltakandi ...	1,368	1,127	79	44	123	57·7	39·0	96·7
	22. Dayapur and Ataicherra	917	930	24	45	69	26·1	48·3	74·4
	23. Abongcherra ...	435	448	15	21	36	34·4	46·8	81·2
	24. Scottpur	901	964	24	52	76	26·6	53·9	80·5
Hailákándi	25. Badarpur ...	514	539	28	17	45	54·4	31·5	85·9
	Total	4,135	4,008	170	179	349	41·1	44·6	85·7

Causes of deaths (Act and non-Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr ...	21. Dudpatli Bara and Chaltakandi	10	21	7	5	...	80	123
	22. Dayapur and Ataicherra ...	3	25	6	4	...	31	69
	23. Abongcherra	11	8	9	1	...	7	36
	24. Scottpur	1	26	14	14	...	21	76
Hailákándi	25. Badarpur	18	8	10	...	...	9	45
	Total	43	88	46	24	...	148	349

The Deputy Commissioner reports that Committees under section 128 of the Act will be appointed in the case of Baladhan and Palarband, which have been on the unhealthy list continuously for four and three years respectively. As regards Dulargram, Rosekandi, Marticherra, and Lalacherra, the Deputy Commissioner is awaiting the returns for the first-half year of 1892 before deciding whether Committees should be summoned under the Act. In all these cases, therefore, no present action is necessary on the part of the Chief Commissioner, but the Deputy Commissioner will be called upon to submit the reports of the Committees on Baladhan and Palarband, and to communicate the decisions arrived at in the case of the other gardens mentioned with the reports of any Committees which may be appointed. Failing such Committees, the Chief Commissioner will consider whether the circumstances are such as to require action under section 132 of the Act. The remaining gardens which were unhealthy on the Act population during the year under report are Dalucherra, Myracherra, Tikalpar (Upper and Lower) and Salganga, Pathicherra, Thailu, Dewan, Kumbirgram, Sonacherra, and Lalamukh or Hasiura. The Chief Commissioner has carefully perused the Civil Surgeon's reports on these gardens, and does not think that action is in any case called for under section 132 of the Act. At the same time all these gardens should be carefully watched. In more than one case the high mortality is attributed to the importation of contractors' coolies of inferior physique—a result which is more or less common to all districts of the province. Some gardens in this district adopt the admirable system of holding a weekly hospital parade, when all the coolies are examined by the medical officer, and those showing any signs of disease are at once sent to hospital. The Chief Commissioner would like to see this system, which cannot be otherwise than beneficial, adopted in the case of all gardens. In some of the reports it is said that no separate record was kept of cases of *anchylostomiasis*; but this will not recur, as under orders recently issued in Circular No. 32G., dated the 27th August 1891, the Deputy Commissioners have been directed to show cases of *anchylostomiasis* separately. The Deputy Commissioner, in commenting on one of the Civil Surgeon's reports, takes the opportunity to recommend that inoculation should be prohibited throughout the whole of the Cachar district. This, however, is a question which should be separately reported on.

Unhealthy gardens in Sylhet

41. The following statements give particulars regarding the unhealthy gardens in the district of Sylhet, and show the causes of the deaths which occurred :

Unhealthy on Act Population.

Subdivision.	Name of garden.	Mean strength		Deaths			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year	Total.	First half-year	Second half-year	Annual.
South Sylhet.	1 Ghillacherra ...	161	150	8	13	21	49·6	86·6	135·2
	2. Lakhaicherra ...	292	315	13	9	22	44·5	28·5	73·0
	3. Kajuricherra ...	399	357	17	23	40	42·6	64·0	106·6
	4. Barmacherra ...	247	231	11	9	20	44·5	38·9	83·4
	5. Mirzapur	49	58	1	10	11	20·4	172·4	192·8
	Total	1,148	1,111	50	64	114	43·5	57·6	101·1

Causes of Deaths (Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia	Other causes.	Total.
South Sylhet.	1. Ghillacherra	1	3	1	12	...	4	21
	2. Lakhaicherra	1	5	1	6	...	9	22
	3. Kajuricherra	3	7	...	3	10	17	40
	4 Barmacherra	5	...	1	6	1	7	20
	5. Mirzapur	...	3	2	5	...	1	11
	Total...	10	18	5	32	11	38	114

Unhealthy on non-Act Population.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille		
		First half-year.	Second half-year	First half-year.	Second half-year.	Total	First half-year.	Second half-year.	Annual.
Habiganj .	6. Lalchand ...	904	959	46	66	112	50·8	68·8	119·6
Karimganj.	7 Chandkhira ...	533	745	8	53	61	15·0	71·1	86·1
	8. Sonakhira ...	325	356	5	20	25	15·3	56·1	71·4
	9. Lalkhira... ...	427	477	11	41	52	25·7	85·9	111·6
	Total... ...	2,189	2,537	70	180	250	31·9	70·9	102·8

Causes of Deaths (non-Act).

Subdivision.	Name of garden.	Cholera.	Dysentery	Fever.	Dropsy.	Anæmia.	Other causes.	Total
Habiganj .	6. Lalchand	12	22	23	6	1	48	112
Karimganj.	7. Chandkhira	4	32	8	11	...	6	61
	8. Sonakhira	...	4	7	1	4	9	25
	9. Lalkhira	...	17	11	2	1	21	52
	Total	16	75	49	20	6	84	250

Unhealthy on Act and non-Act Population taken together.

Subdivision.	Name of garden.	Mean strength. First half-year	Mean strength. Second half-year.	Deaths First half-year.	Deaths Second half-year.	Deaths Total.	Ratio per mille. First half-year.	Ratio per mille. Second half-year.	Ratio per mille. Annual.
South Sylhet. Karimganj.	10. Chandbhag ...	420	464	12	28	40	28·5	60·3	88·4
	11. Luayani ...	447	551	38	25	63	85·0	45·1	130·8
	12. Hatikhira ...	476	552	6	59	65	12·6	106·8	119·1
	Total ...	1,343	1,570	56	112	168	41·7	71·3	113·0

Causes of Deaths (Act and non-Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Dropsy.	Fever.	Anæmia.	Other causes.	Total.
South Sylhet. Karimganj.	10. Chandbhag ...	...	1	13	13	5	...	8	40
	11. Luayani ...	...	17	15	12	12	...	7	63
	12. Hatikhira ...	...	...	31	15	7	...	12	65
	Total ...	...	18	59	40	24	...	27	168

The delay which has occurred in the preparation and submission of the Provincial Report has been entirely due to the non receipt of the Civil Surgeon's reports on unhealthy gardens in the Sylhet district. The responsibility for this result rests with the Deputy Commissioner and the Civil Surgeon; but it is only fair to remark that both of these officers were new to the district, and that the latter was for some time incapacitated by sickness caused by an accident. The only gardens unhealthy on the Act population were five gardens in the South Sylhet subdivision, in the case of which the Deputy Commissioner states that he will arrange for Committees where necessary. The Deputy Commissioner will be called upon to report in what cases Committees are held and to submit the Committee's reports for the perusal of the Chief Commissioner. Of the four gardens unhealthy on the non-Act population, three (Lalchand, Chandkhira, and Lalkhira) appear from the Civil Surgeon's reports to be very bad cases, and the Deputy Commissioner should take all possible measures with a view to induce the managers to remedy the defects noticed and to introduce such improvements as may be possible. The three gardens unhealthy on the Act and non-Act population taken together were not inspected by the Civil Surgeon.

Unhealthy gardens in Kámrúp.

42. The following statements give particulars regarding the unhealthy gardens in Kámrúp, and show the causes of the deaths which occurred:

Unhealthy on Act Population.

Name of garden.	Mean strength. First half-year.	Mean strength. Second half-year.	Deaths. First half-year	Deaths. Second half-year.	Deaths. Total.	Ratio per mille. First half-year	Ratio per mille. Second half-year.	Ratio per mille. Annual.
1. Amchong ...	115	133	6	6	12	52·1	45·1	97·2

Causes of Deaths (Act).

Name of garden	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
1. Amchong ...	.....	2	... ..	.....	3*	7	12

* Includes 2 deaths from *kála-azár*.

Unhealthy on non-Act Population.

Name of garden	Mean strength		Deaths.			Ratio per mille.		
	First half-year.	Second half-year.	First half-year.	Second half-year.	Total	First half-year.	Second half-year.	Annual.
2. Rani	62	60	9	2	11	145·1	33·3	178·4

Causes of Deaths (non-Act).

Name of garden.	Cholera.	Dysentery	Fever.	Dropsy.	Anæmia.	Other causes	Total.
2. Rani ...	1		. .	.....	10*		11.

Unhealthy on Act and non-Act Population taken together.

Name of garden	Mean strength.		Deaths.			Ratio per mille.		
	First half-year.	Second half-year.	First half year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
3. Chunsali	395	410	23	19	42	58·2	46·3	104·5
4. Chandrapur .	282	267	29	12	41	102·8	44·9	147·7
5. Bordwar	330	353	17	10	27	51·5	28·3	79·8
6. Mandakata ..	225	261	19	10	29	84·4	38·3	123·7
Total	1,233	1,292	88	51	139	71·3	39·4	110·7

Causes of Deaths (Act and non-Act).

Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
3. Chunsali		4	3		32	3	42
4. Chandrapur ...	7	9			23	2	41
5. Bordwar	1	4	1	2	15	4	27
6. Mandakata	9	1	12		2	5	29
Total .	17	18	16	2	72†	14	139

All the unhealthy gardens in this district were inspected by the Civil Surgeon, whose reports have been fully commented upon by the Deputy Commissioner It is clear that the Deputy Commissioner, Mr. Teunon, is fully alive to the necessity for watching the unhealthy gardens and taking action when necessary ; and, such being the case, no remarks are called for from the Chief Commissioner.

Unhealthy gardens in Darrang.

43. The following statements give particulars regarding unhealthy gardens in Darrang, and show the causes of the deaths which occurred :

Unhealthy on Act Population.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year	Second half-year.	First half-year.	Second half-year.	Total	First half-year.	Second half-year	Annual.
Sadr ...	1. Namgaon ...	283	339	7	18	25	24·7	53·1	77·8
	2. Nahorani ...	535	536	18	23	41	33·6	42·9	76·5
	3. Kalain ...	73	141	5	8	13	68·5	56·7	125·2
	4. Dhekiajuli ..	181	200	5	10	15	27·6	50·0	77·6
	5. Rowta ...	174	177	14	17	31	80·4	96·0	176·4
	6. Diplonga ...	261	290	10	13	23	38·3	44·8	83 1
	7. Mijikajan .	399	465	10	32	42	25·0	68·8	93·8
	Total	1,906	2,148	69	121	190	36·2	56·3	92·5

* All from *kala-azar.*
† This includes 67 deaths from *kala-azar.*

Causes of Deaths (Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr ...	1. Namgaon	...	6	1	...	9	9	25
	2. Nahorani	3	10	2	2	14	10	41
	3. Kalain	...	4	2	...	4	3	13
	4. Dhekiajuli	1	6	...	1	...	7	15
	5. Rowta	18	5	...	3	1	4	31
	6. Diplonga	8	10	...	...	1	4	23
	7. Mijikajan	14	5	2	2	4	15	42
	Total	44	46	7	8	33	52	190

Unhealthy on Non-Act Population.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Sadr ...	8. Dhendai ..	125	173	3	9	12	24·0	52·0	76·0
	9. Barpukhuri ...	433	441	18	25	43	41·5	56·7	98·2
Mangaldai...	10. Banglagor ...	123	131	14	...	14	113·8	...	113·8
	Total	681	745	35	34	69	51·4	45·6	97·0

Causes of Deaths (non-Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr ...	8. Dhendai	...	1	2	1	...	8	12
	9. Barpukhuri	3	15	...	6	3	16	43
Mangaldai...	10. Banglagor	10	...	2	1	...	1	14
	Total	13	16	4	8	3	25	69

Unhealthy on Act and non-Act Population taken together.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Sadr ...	11. Gelladong ...	274	269	26	4	30	94·8	14·8	109·6
	12. Tarajuli ...	470	535	22	25	47	46·8	46·7	93·5
	13. Sadharughop ...	436	431	17	18	35	38·9	41·7	80·6
Mangaldai ...	14. Panbari ...	282	247	20	4	24	70·9	16·2	87·1
	15. Kowpati ...	387	438	20	16	36	51·6	36·5	88·1
	Total ...	1,849	1,920	105	67	172	56·7	34·8	91·5

Causes of Deaths (Act and non-Act).

Subdivision	Name of garden	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr ...	11. Gelladong	22	2	2	2	...	2	30
	12. Tarajuli	18	10	8	3	...	8	47
	13. Sadharughop ...	4	1	4	2	10	14	35
Mangaldai ...	14. Panbari	15	1	4	1	...	3	24
	15. Kowpati	21	2	1	...	1	11	36
	Total	80	16	19	8	11	38	172

Of the seven gardens unhealthy on the Act population, one (Dhekiajuli) will be the subject of a Committee, and the Deputy Commissioner will be requested to submit the Committee's report for the perusal of the Chief Commissioner. In regard to the remaining gardens, it is not proposed at present to hold Committees, and action is not required under section 132 of the Act. The particular case of Rowta has already been noticed in paragraph 3, where the question of responsibility is discussed.

Unhealthy gardens in Nowgong.

44. The following statements give particulars regarding the unhealthy gardens in Nowgong, and show the causes of the deaths which occurred:

Unhealthy on Act Population.

Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
	First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
1. Nelli	121	129	5	11	16	41·3	85·2	126·5
2. Lengteng	282	348	15	11	26	53·1	31·6	84·7
3. Udmari	108	113	3	7	10	27·7	61·9	89·6
Total	511	590	23	29	52	45·0	49·1	94·1

Causes of Deaths (Act).

Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
1. Nelli	.....	5	2	1	3	5	16
2. Lengteng	3	1	.....	.....	5	17	26
3. Udmari	3	2	.....	.....	.....	5	10
Total	6	8	2	1	8	27	52

Unhealthy on non-Act Population.

Name of garden	Mean strength.		Deaths.			Ratio per mille.		
	First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year	Second half-year.	Annual.
4. Anjukpani	180	180	6	8	14	33·3	44·4	77·7
5. Siconi	231	235	6	12	18	25·9	51·0	76·9
Total	411	415	12	20	32	29·1	48·1	77·2

Causes of Deaths (non-Act).

Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
4. Anjukpani	.....	1	3	.....	1	9	14
5. Siconi	1	5	1	.....	1	10	18
Total	1	6	4	.....	2	19	32

Unhealthy on Act and non-Act Population taken together

Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
	First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
6. Koliabar	198	215	19	9	28	95·9	41·8	137·7
7. Silghát	303	333	12	13	25	39 6	39·0	78·6
8. Balijuri	237	238	11	8	19	46·4	33·6	80·0
Total	738	786	42	30	72	56·9	38·1	95·0

Causes of Deaths (Act and non-Act).

Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
6. Koliabar	25	1	.....	.....	.....	2	28
7. Silghát	6	5	2	.....	.....	12	25
8. Balijuri	.....	1	10	.....	.....	8	19
Total	31	7	12	.....	.....	22	72

No case seems to have been made out either for summoning Committees or for taking action under section 132 of the Act in regard to any of those gardens which were unhealthy on the Act population during the year under report, but the Deputy Commissioner should be careful to see that all the recommendations made by the Civil Medical Officer in his inspection notes are carried out as far as possible within a reasonable time.

Unhealthy gardens in Sibságar.

45. The following statements give particulars regarding the unhealthy gardens in the district of Sibságar, and show the causes of the deaths which occurred :

Unhealthy on Act Population.

Subdivision.	Name of garden	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Jorhát ...	1. Mariani ...	396	455	14	27	41	35·3	59·3	94·6
	2. Cinnamara ...	630	651	18	31	49	28·5	47·6	76·1
	3. Garia Habi ...	166	175	5	7	12	30·1	40·0	70·1
Golághát ...	4. Hatikuli ...	207	189	7	7	14	33·8	37·0	70·8
	5. Halmira ...	110	79	7	3	10	63·6	37·9	101·5
	6. Bihora ...	208	261	6	15	21	28·8	57·4	86·2
	Total ...	1,717	1,810	57	90	147	33·1	49·7	82·8

Causes of Deaths (Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Jorhát ...	1. Mariani	11	10	5	1	2	12	41
	2. Cinnamara ...	4	10	8	2	1	24	49
	3. Garia Habi ...	...	1	...	1	1	9	12
Golághát ...	4. Hatikuli ...	4	6	...	...	1	3	14
	5. Halmira ...	2	7	...	...	...	1	10
	6. Bihora	3	8	1	...	4	5	21
	Total	24	42	14	4	9	54	147

Unhealthy on Act and non-Act Population taken together.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Sadr ...	7. Sonari ...	495	403	32	13	45	64·6	32·2	96·8
	8. Bihubar ...	314	521	12	51	63	38·2	97·8	136·0
Jorhát ...	9. Hatichungi ...	451	495	10	28	38	22·1	56·5	78·6
	10. Dhekiajuli ...	676	739	16	38	54	23·7	51·4	75·1
	11. Soicatta ...	697	732	22	51	73	31·5	69·6	101·1
Golághát ...	12. Deering ...	242	268	2	20	22	8·2	74·6	82·8
	Total	2,875	3,158	94	201	295	32·6	63·6	96·2

Causes of Deaths (Act and non-Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr ...	7. Sonari	...	10	2	2	1	30	45
	8. Bihubar ...	4	24	6	...	...	29	63
Jorhát ...	9. Hatichungi ...	3	12	3	5	...	15	38
	10. Dhekiajuli ...	3	23	3	4	...	21	54
	11. Soicatta ...	1	19	6	11	6	30	73
Golághát ...	12. Deering ...	9	3	5	...	1	4	22
	Total	20	91	25	22	8	129	295

There were no gardens unhealthy on non-Act population only.

Of the six gardens unhealthy on the Act population, all, with the exception of Hatikuli, were specially inspected by the Civil Surgeon, and in regard to the gardens thus inspected it seems only necessary that the Deputy Commissioner should be careful to see that the recommendations made are carried out within a reasonable time. These inspections appear to have been performed in a very thorough manner, and as regards Mariani, Cinnamara, Garia Habi, and Halmira, the medical officer anticipated that the gardens would cease to be unhealthy in view of the improvements which were being effected by the managers. In the case of Bihora it will be necessary to consider whether action should not be taken under section 132 of the Act unless decided improvement is shown on the occasion of the next inspection. As regards Hatikuli, no time should be lost in holding a special medical inspection, the results of which should be reported for the orders of the Chief Commissioner. In the case of the gardens unhealthy on total population, Committees were held during the year under report, or have been held since the close of the year, on the Sonari and the Deering tea gardens. It is also proposed to hold a Committee on Soicatta.

As regards the majority of the unhealthy gardens in Sibságar, as in most other districts, it cannot be doubted that the mortality is largely due to the inferior class and

poor physique of the coolies recruited under existing arrangements, and the Chief Commissioner can only express his surprise that this state of things should be permitted to continue by those responsible for the proper and economical working of the gardens.

Unhealthy gardens in Lakhimpur.

46. The following statements give particulars regarding the unhealthy gardens in the Lakhimpur district, and show the causes of the deaths which occurred :

Unhealthy on Act Population only.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Sadr ...	1. Margherita Tea Estate ...	156	336	2	22	24	12·8	65·4	78·2
	2. Rohmaria, Balijan	328	316	11	12	23	33·5	37·9	71·4
	3. Sessa (B. I. Tea Company) ...	121	115	6	5	11	49·5	43·7	92·9
	4. Rowmari ...	497	476	8	27	35	16·0	56·7	72·7
	5. Samdang ...	337	402	11	16	27	32·6	39·8	72·4
	6. Mesaijan ...	536	519	19	27	46	35·4	52·0	87·4
North Lakhimpur.	7. Bordeobam ...	135	152	2	10	12	14·7	65·7	80·4
	Total	2,110	2,316	59	119	178	27·9	51·3	79·2

Causes of Deaths (Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr... ...	1. Margherita Tea Estate	1	8	...	...	1	14	24
	2. Rohmaria, Balijan ...	...	5	2	2	5	9	23
	3. Sessa (B. I. Tea Company) ...	3	2	1	...	4	1	11
	4. Rowmari ...	11	6	...	3	2	13	35
	5. Samdang ...	2	8	12	...	2	3	27
	6. Mesaijan ...	6	23	3	1	2	11	46
North Lakhimpur ...	7. Bordeobam ...	1	8	...	...	3	...	12
	Total	24	60	18	6	19	51	178

Unhealthy on Act and non-Act Population taken together.

Subdivision.	Name of garden.	Mean strength.		Deaths.			Ratio per mille.		
		First half-year.	Second half-year.	First half-year.	Second half-year.	Total.	First half-year.	Second half-year.	Annual.
Sadr ...	8. Coal mines at Tikhak ...	632	697	42	13	55	66·4	18·6	85·0
	9. Ditto Ledo ...	1,448	1,701	82	33	115	56·6	19·4	76·0
	10. Dikhari ...	367	375	6	23	29	16·3	61·3	77·6
	11. Naholia Tipling ...	201	236	8	13	21	39·8	55·0	94·8
	Total... ...	2,648	3,009	138	82	220	52·1	27·2	79·3

Causes of Deaths (Act and non-Act).

Subdivision.	Name of garden.	Cholera.	Dysentery.	Fever.	Dropsy.	Anæmia.	Other causes.	Total.
Sadr... ...	8. Coal mines at Tikhak ...	1	16	1	...	8	29	55
	9. Ditto Ledo ...	6	31	3	...	17	58	115
	10. Dikhari ...	1	4	6	...	...	18	29
	11. Naholia Tipling ...	...	7	1	7	...	6	21
	Total	8	58	11	7	25	111	220

There were no gardens unhealthy on non-Act population only.

The particulars supplied in the Civil Surgeon's reports on the unhealthy gardens are not sufficient to enable the Chief Commissioner to decide whether further action is necessary in any of these cases. It is certainly not possible to take action under section 132 of the Act on the meagre information supplied, but the Inspector should consider in connection with the returns of vital statistics for the first half of the current year whether action is called for in any case under section 128 of the Act, and no time should be lost in the appointment of Committees, where necessary. Considerable mortality occurred in the mines of the Assam Railway and Trading Company at Tikhak and Ledo, but the Agent to the Company has recently been directed to give effect to certain recommendations made by the Principal Medical Officer and Sanitary Commissioner as a result of a careful inspection carried out last cold weather. Between the months of March 1891 and February 1892 the mines were inspected no less than seven times, and although the mortality was considerable, the results were less unsatisfactory than during the preceding year.

CHAPTER VI.

INSPECTION.

Number of gardens submitting returns.

47. The number of gardens shown in the inspection registers has decreased from 907 to 872, whereas the number submitting returns has increased from 772 to 778. The decrease in the number of gardens on the inspection registers is mainly due to a falling off (from 64 in the previous year to 24 in the year under report) under the head of non-Act gardens with less than 50 coolies. The Deputy Commissioner of Cachar reports that, as in the previous year, managers were backward in submitting returns, the last amended return having been received as late as the 19th March 1892, but no prosecutions were undertaken. On the same subject the Deputy Commissioner of Nowgong reports as follows :

It is far from satisfactory to note that, with the exception of a few gardens in this district, all the managers showed great dilatoriness in submitting half-yearly returns. One manager detained his half-yearly return of free labourers so late as 21st March 1892. In the case of some managers great difficulty is experienced in getting explanations of mistakes in their returns.

Classification of gardens according to the labourers employed and inspection of Act and non-Act gardens.

48. The following statement shows the number of gardens, classified district by district, according to the class of labourers employed, the number which submitted returns, and the number visited by inspecting officers :

	Cachar.					Sylhet.					Kamrup.					Darrang.				
		Non-Act.					Non-Act.					Non-Act.					Non-Act.			
	Employing Act coolies.	Over 50.	Under 50.	No coolies on estate.	Total.	Employing Act coolies.	Over 50.	Under 50.	No coolies on estate.	Total.	Employing Act coolies.	Over 50.	Under 50.	No coolies on estate.	Total.	Employing Act coolies.	Over 50.	Under 50.	No coolies on estate.	Total.
Number of gardens	147	34	..	6	187	68	45	1	..	118	12	6	2	30	50	72	5	1	11	89
" ending returns 30 and 31	147	34	..	..	181	68	49	1	..	118	12	6	2	..	20	72	6	1	..	78
" inspected once ..	116	26	..	..	142	68	48	..	..	116	6	3	1	..	10	60	5	..	..	65
" " twice ..	3	..	..	..	3	..	..	..	..	..	6	2	..	..	8	10	..	..	..	10
" " thrice ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
" " four times ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total number inspected in 1891.	119	26	..	..	145	68	48	..	..	116	12	5	1	..	18	71	5	..	..	76
" " " " 1890	146	35	..	..	181	70	41	1	..	112	10	5	..	..	15	69	4	..	..	73

	Nowgong.					Sibságar.					Lakhimpur.					Total.				
	Employing Act coolies.	Non-Act. Over 50	Non-Act. Under 50.	No coolies on estate.	Total.	Employing Act coolies.	Non-Act. Over 50.	Non-Act. Under 50.	No coolies on estate.	Total.	Employing Act coolies.	Non-Act. Over 50.	Non-Act. Under 50.	No coolies on estate.	Total.	Employing Act coolies.	Non-Act. Over 50.	Non-Act. Under 50.	No coolies on estate.	Total.
Number of gardens	34	16	6	3	59	164	15	11	34	224	130	2	3	10	145	627	127	24	94	872
" sending returns 50 and 51	34	16	6	..	56	164	15	11	..	190	130	2	3	..	135	627	127	24	..	778
" inspected once ..	25	14	..	..	39	130	15	4	..	158	108	2	2	..	112	522	113	7	..	642
" " twice ..	2	1	..	..	3	24	..	..	..	24	15	..	..	..	15	60	3	..	..	63
" " thrice ..	..	..	..	..	..	1	..	..	..	1	3	..	..	..	3	5	..	..	..	5
" " four times ..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	3	3	..	..	..	3
Total number inspected in 1891.	27	15	..	..	42	164	15	4	..	183	129	2	2	..	133	590	116	7	..	713
" " " " 1890	37	16	..	..	53	160	18	..	.	178	133	4	4	..	141	625	118	5	..	748

The Chief Commissioner regrets to notice that the amount of inspection work performed was not so great as in the preceding year, 713 gardens having been inspected, against 748 gardens in 1890 and 704 in 1889. A similar result is apparent in regard to the number of gardens inspected twice, which fell from 76 in the previous year to 63. The number of gardens inspected three and four times was 5 and 3 respectively, against 4 and *nil* during 1890.

In Cachar, of 181 gardens liable to inspection, only 145 were inspected during the year, leaving a balance of 36 uninspected gardens, of which 4 are in the sadr subdivision and 32 in the Hailákándi subdivision. The Deputy Commissioner (Mr. Clark) explains that the non-inspection of the Hailákándi gardens was due to a misunderstanding on his part, as he was under the impression that the Native Extra Assistant Commissioner, who was in charge of the subdivision, was not empowered to inspect gardens. This misunderstanding is much to be regretted, and should not have occurred. It was due to simple carelessness on the part of the Deputy Commissioner, whose special attention was more than once called to the necessity for completing all inspections before the close of the year, and the Chief Commissioner cannot accept it as in any way a sufficient excuse for the neglect which took place of this most important work. The Hailákándi gardens, which remained uninspected at the close of 1891, have since been inspected. The number of inspections carried out by the Deputy Commissioner was 30, and the bulk of the work was done by the Civil Surgeon and by the Assistant Superintendent of Police. In Sylhet, all the gardens liable to inspection were inspected with the exception of one which was newly opened in the latter part of the year. Two non-Act gardens (one with more than 50 coolies on it and the other with less than 50) were not inspected. Of the total number of inspections, 2 were carried out by the Deputy Commissioner and 12 by the Civil Surgeon. In Kámrúp, of 18 gardens liable to inspection, 17 were inspected. The uninspected garden was a non-Act garden employing more than 50 coolies, and the Deputy Commissioner explains that the non-inspection of this garden and of another non-Act garden employing less than 50 coolies was due to the fact that the gardens were not known to be subject to inspection until the returns for the second half-year had been received. Both these gardens will be inspected in the current year. Of the total number of inspections (26), 18 were carried out by the Deputy Commissioner. In Darrang only one garden of those liable to inspection remained uninspected at the close of the year; but this garden was visited by the Deputy Commissioner, although a formal inspection note was not recorded. Of the 76 gardens inspected, the Deputy Commissioner inspected 20. In Nowgong, of 50 gardens liable to inspection, 42 were inspected, the balance of uninspected gardens consisting of eight gardens all of which, with the exception of one, employ Act labour. All the gardens which remained uninspected at the close of 1891 were inspected during the opening months of 1892 with one exception. Of 42 inspections, 4 were performed by the Deputy Commissioner, 24 by the Civil Surgeon, and 14 by the District Superintendent of Police. The amount of work done by the Deputy Commissioner was exceptionally small in consequence of illness. In Sibságar all the gardens liable to inspection were inspected. Of the total number of inspections performed, the Deputy Commissioner undertook 29. In Lakhimpur all the gardens liable to inspection were inspected during

the year with the exception of two gardens which were opened towards the close of the year. The Deputy Commissioner undertook forty-one of the total inspections, and thus performed an adequate share of the work.

Looking at the results as a whole, the Chief Commissioner cannot say that they show improvement as compared with the results of the previous year, and it is clear, especially in the case of Sylhet, that the Deputy Commissioner in some instances failed to perform a sufficient amount of inspection work; but Mr. Ward is aware that the work of inspecting tea gardens forms a heavy addition to the duties of the district staff, and he has recently, in connection with the Special Report on the working of Act I of 1882, made proposals to the Government of India, which, if sanctioned, will have the effect of providing a considerable measure of relief in this respect.

CHAPTER VII.

WORKING OF THE SYSTEM GENERALLY.

Relations between employers and labourers.

49. The Deputy Commissioner of Cachar reports that, although there have been a few cases of occasional friction arising out of delay in the payment of wages and other similar causes, the relations between employers and labourers have been, on the whole, satisfactory. The Deputy Commissioners of Sylhet, Kámrúp, and Nowgong report that the relations between employers and labourers were generally good, but it is noteworthy that cases of rioting increased from 65 in the previous year to 106 during the year under report (see paragraph 26 of this report). This increase was due to the results in four districts, *viz.*, Cachar, Sylhet, Darrang, and Lakhimpur, the figures for the past two years being—

	Cases of rioting.	
	1890.	1891.
Cachar	12	28
Sylhet	6	41
Darrang	7	18
Lakhimpur	6	19

The rioting cases in Cachar were none of them of a serious type, and were mostly cases in which bodies of coolies endeavoured to intimidate managers or subordinate garden servants for various reasons. Some of the Sylhet cases were of a more serious type, and in one case the European manager of a garden was severely assaulted by a body of coolies. The Chief Commissioner has perused the record relating to this case, and he finds it admitted that the manager was the first to use force by striking, though not severely, a coolie whom he found to be idling. The man thus struck, who had been sentenced by the subdivisional officer to six months' rigorous imprisonment, was acquitted by the Sessions Judge on appeal. The Deputy Commissioner of Darrang, while expressing an opinion that the relations between employers and labourers were generally good, mentions the following cases:

(1) Twelve coolies of the Haleswar garden in the sadr subdivision were sent up for trial under section 147, Indian Penal Code. Six of the accused, Bhuiyans by caste, were driving a wild pig into the lines from the jungle. The other six accused abused the Bhuiyans, and there was a fight. Five men were sentenced to one month and five to two weeks' rigorous imprisonment each; two were discharged.

(2) Ten coolies of the Borjuli garden in the sadr subdivision, one of the largest tea estates in the district, were charged with rioting and abetment under sections 147 and 109, Indian Penal Code. The facts are briefly these: Mr. Creagh, an assistant at Borjuli, went, according to his daily custom, round the various sets of lines, which are scattered in various places over a large expanse of tea. His object was to make the coolies turn out to their work. In line No. 4 there had been a so-called *Karma puja* the day before, and the coolies had been up all night making merry and getting very drunk. Naturally, at daybreak there were several sore heads of the party, and Mr. Creagh's arrival in the lines must have struck many of the revellers as a very disagreeable incident. One Bijay sardar warned Mr. Creagh that the coolies did not mean to turn out. It was obviously Mr. Creagh's duty, however, to overcome the half drunken reluctance of the coolies, and he pressed on. Some of the coolies, chiefly the women, apparently did turn out. But Bijay told Mr Creagh that there were others in a passage between two of the huts in the lines who refused to turn out. These Mr. Creagh approached. The men were sulky and obstinate, and refused to speak. Mr. Creagh's account of what followed is that finding his admonitions of no avail, he turned to Bijay sardár, who was behind him, and was

astonished to find that this man had his stick raised to beat him. He knocked Bijay down in self-defence, and was then assaulted by all the accused persons, and finally had to retreat towards the bungalow, pursued by all the accused persons. One man was sentenced to eighteen months', two to one year's, and five to six months' rigorous imprisonment each, and two were acquitted.

(3) The accused, a coolie of Pratabgarh tea estate, took the complainant, another coolie of the same garden, to the jungle on the pretence of getting firewood. There he demanded money from the complainant, and as the complainant did not give it, he inflicted a wound upon him and robbed him of Rs. 36. The accused admitted this, and was sentenced to two years' rigorous imprisonment and a fine of Rs. 50 under section 392, Indian Penal Code.

(4) The complainant was a sardár of the Ketela garden, and the accused was a cart-driver. On the day of occurrence, the complainant with several sardárs waited in front of the garden office doorway to report the daily work done by the coolies, when the accused, coming there on a sudden, struck the complainant on the back of the neck with a *dao*, and then struck three blows—two on the back and one across the right cheek, inflicting dangerous wounds. The accused confessed and pleaded guilty to the charge, and stated that the complainant with four others gave him a severe beating in November 1890, having had a quarrel. The accused was sentenced to two years' rigorous imprisonment with three months' solitary confinement under section 326, Indian Penal Code.

(5) In one case of unlawful assembly, eleven coolies of the Rowta tea garden were convicted under section 143, Indian Penal Code, by Babu Chandra Kanta Sen, Extra Assistant Commissioner. The accused persons were members of the gang of immigrants, the excessive mortality among whom has been described elsewhere. They appeared to have been in ill-health and in ill spirits, and were disinclined to work. When pressure was brought to bear, they went in a body to the manager's bungalow, armed with sticks, and threatened to beat him and the muharrir. Some of the older coolies came to the rescue, and the 'unlawful assembly' appears to have been dispersed without much trouble. This occurred on the 2nd May, three days after the new coolies' arrival on the garden. It seems to me a pity that coolies (admittedly an extremely poor and unhealthy gang) were put to work so soon, and it is still more to be regretted that they were prosecuted. The sentences inflicted were, however, light. Two were sentenced to one week's rigorous imprisonment, and nine to be imprisoned for one week only. The matter was not brought prominently to my notice till the garden was inspected by me in November last. It was only then that I discovered that the mortality, which has exceeded 3½ per cent. in the first half-year of 1891, was almost entirely confined to this one unhappy gang. When the case of unlawful assembly occurred, the garden was not unhealthy, inasmuch as this gang had only just arrived, and no deaths had taken place among its members. For acclimatised coolies Rowta has always been healthy enough. I shall shortly call a committee to consider whether any new coolies should be admitted to the garden. The manager has removed his lines to a better and healthier site, and is digging wells. But I think that, for a time at all events, no new coolies should be admitted to this garden under the Act.

The Deputy Commissioner of Sibságar reports as follows :

The few sensational cases that occurred last year are not sufficient in my opinion to justify an assumption that relations between employers and labourers have shown any retrogressive tendency. I still think that their relations are on the whole good, the exceptions being where the manager is a man of bad character, or where he leaves matters too much in the hands of his subordinates.

* * * * *

Speaking generally, the tone of the planters in these matters is decidedly good, and the exceptional instances, such as we have had to deal with last year, meet with the utmost disapproval among the older and more experienced managers.

The following are particulars of the more important cases brought by coolies against managers. The mother of one Banu, a boy of about fifteen years of age, executed on his behalf a civil contract to labour on the garden of which Mr. Dunne is manager. He was enticed from the garden, but was arrested and brought before Mr. Dunne, who sent him to the thána with a vernacular letter, stating that the boy had been enticed away and caught. The police sent up the boy for trial as a deserter. The boy was in consequence kept in confinement or illegal custody for a good part of two days. Eventually the boy was discharged, and Mr. Dunne was convicted of the offence of wrongful confinement under section 342, Indian Penal Code, and fined Rs. 100.

The accused, Mr. Gibbons, manager of Banfera, wrote to the head constable of the Sonari thána that he would supply two carts for the Manipur expedition, and requested him to send a constable to take the carts and cartmen. He had previously asked one Kanchan syce, a free labourer on the garden, to give an agreement, giving him the alternative of signing a contract or going to Manipur. The coolie having refused to sign the agreement was sent with the carts in charge of a constable. In the meanwhile, however, the police received information, in consequence of which Kanchan was released, and Mr. Gibbons was put on his trial before a jury under sections 420, 511, 342, and 385, Indian Penal Code. The jury found him not guilty on the first two charges but were divided as to the charge under section 385, Indian Penal Code. The case was then referred to the High Court, which discharged the accused.

Some Kachari coolies of Mr. Hitchin's garden complained that Mr. Hitchin had induced them to return all their money to him and had then embezzled it. The magistrate found that the coolies voluntarily kept money with the accused for safe custody. As the latter was transferred to another garden, the complainants found difficulty in recovering the money, and brought the case. The accused was acquitted, and the money was returned to the coolies.

One Charles Arthur Browne gave a slap and about half a dozen cuts with a stick to a coolie for being absent from his work and impertinent. He was fined Rs. 15 under section 352, Indian Penal Code.

A case of violent and unprovoked assault with a cane was brought by a coolie against the manager of Deering. He was fined Rs. 42 under section 352, Indian Penal Code.

The Deputy Commissioner of Lakhimpur writes :

The relations between employers and labourers have been generally satisfactory except in a few unhealthy and unpopular gardens. The case of the Khobang garden has been specially reported. A large number of Rewa coolies struck work, declaring that they had come up for four months only. They came into the station *en masse* in spite of the protests of the manager, and made various complaints, which were enquired into. They were sent back, and shortly after there was a riot on the garden, in the course of which the manager was seriously assaulted. The allegations of fraudulent recruitment and ill-treatment were disproved. The coolies were from a new labour district, and did not like to work. Being strong in number, they thought they could take the law into their own hands. They have now settled down, and when I last inspected the garden, there were no complaints on either side.

In two other cases batches of coolies came to complain of overwork, insufficient food, &c.

In one case a superintendent sent in a large number of Ganjami coolies, who insisted on coming into cutcherry. I sent the coolies back, and made a local enquiry. Their complaint against the sardár was at once remedied by the superintendent. The tendency for coolies to come in numbers to complain in court appears to be increasing, and employers urge with justice that there should be a penalty for coolies leaving the garden when the procedure of section 134 has been complied with.

The cases referred to above are the exception to the general rule which came before the courts, and the state of the relations between employers and employed can be best judged from the comparatively small number of such complaints from the result of inspections and visits to gardens.

Relations between the tea garden population and the villagers.

50. Although cases of friction occasionally occur, there can be no doubt that the garden population, as a general rule, live on friendly terms with the natives of the country. On this subject the Deputy Commissioner of Sibságar (Mr. Pittar) writes :

As far as I have seen, I can only describe these as excellent. I have been pleased to see cases in which the villagers have made the nearest planter their mouthpiece in communicating their wants to the district officer, and to observe the interest taken in the villagers' concerns. It is entirely to the interest of managers to cultivate friendly relations with villagers, for by doing so they not only get labour and materials when most required, but their coolies are enabled to make the most of their pay by buying paddy cheaply from villagers, and thus saving money for other kinds of food or for investment in cattle or land, which ties them to the garden.

General condition of labourers.

51. There is nothing new to report under this head, and it is unnecessary to do more than to refer to paragraphs 125-167 of the Special Report, where the matter has been very fully treated.

Settlement of time-expired garden labourers on the land.

52. The figures below show the amount of land held direct from Government by immigrants in the various districts of the province :

District.	1890. Acres.	1891. Acres.
Cachar	7,133	7,365
Sylhet	300	1,208*
Kámrúp	42	42
Darrang	7,454	8,327
Nowgong	1,895	2,069
Sibságar	10,639	11,732
Lakhimpur	4,897	5,724
Total	32,360	36,467

The increase is common to all districts except Kámrúp, but, as has been remarked on previous occasions, there can be little doubt that the figures do not embody complete information. Thus, the Deputy Commissioner of Cachar reports :

Time-expired coolies have also settled in *mirasdari* land, but of the extent of land so held I have no record. A very large number of coolies still employed on gardens also cultivate land, mostly portions of the garden land. As a rule, they hold rent free, managers being only too glad to see them cultivate, as though it takes up a part of their time, it prevents their absconding, and is in many ways advantageous.

And the Deputy Commissioner of Lakhimpur writes :

The figures showing the amount of land held by immigrants in this district exhibit an increase of 827 acres over the figures of 1890. Of the total area, 4,795 acres are in the sadr subdivision, and 929 acres in the North Lakhimpur subdivision. Both show an increase. These figures only refer to coolies holding land, and even as regards them cannot be considered complete. Testing of measurements has lately shown that many coolies escape assessment.

* Of these, 88 acres were held direct from Government
Ditto 763 ditto ditto the managers of tea gardens.
Ditto 357 ditto ditto other landholders.

The following is an extract from the Report of the Census taken during the year under review, which relates to this matter :

It would be interesting if the results of the census could be utilised to throw light on the question as to how far tea garden coolies settle down in the province after the expiry of their agreements, which has from time to time formed the subject of enquiry or speculation. Unfortunately, exact figures are not available to show how many of the foreign born came to the province as garden coolies. From the more detailed information regarding the birth place of foreigners, which has been furnished at the present census, it is possible to frame a fairly accurate approximation to the real proportion, but the same particulars are not available in the return for 1881. We may, however, I think, assume that the immigrants to tea gardens in 1881 bore the same proportion to the total number of immigrants which is estimated to exist in the return for the present census. On this assumption, the increase in this section of the immigrant population during the decennium amounts to 190,952.

The annual number of immigrants to tea gardens is known from the statistics maintained under the Labour Act, an abstract of which is given in the margin. Calculating the death rate among these new arrivals to amount to 40 per 1,000, the total increase during the decade would have amounted to 215,622, if none of these immigrants had left the province. If, therefore, my estimate of the proportion of the tea garden emigrants to the total number of immigrants in 1881 and 1891 and my estimate of the death rate is correct, it appears that the real increase amongst this class is less by 24,670 than it would have been had none of them returned to their country. In other words, not more than 24,670 out of the total number of garden immigrants returned to their country during the decade. Roughly speaking, it may be said that at the most only 5 to 10 per cent. of the coolie population leave Assam after their agreements have expired.

Statement showing the annual immigration to t a gardens as reported in the labour returns.

Year.	Number of immigrants.	Number remaining in 1891 at an annual decrement of 40 per 1,000.
1881	14,548	9,672
1882	19,185	13,286
1883	26,890	19,038
1884	32,747	24,608
1885	21,147	16,553
1886	22,715	18,521
1887	29,000	24,707
1888	33,317	29,476
1889	37,548	34,604
1890	26,205	25,157
Total	262,892	215,622

* * * * *

The total number of foreign born coolies on tea gardens amounts to 326,086, so that out or 423,199 persons who are estimated to have originally entered the province as coolies, 97,113 have left the gardens and settled down to other pursuits, as cartmen, petty traders, domestic servants, &c. The quantity of land held direct from Government by ex-tea garden coolies, is returned as 25,315 acres in 1888, 28,376 in 1889, and 32,360 in 1890. Although these figures do not include the area cultivated by time-expired immigrants on land other than what they hold direct from Government, and although the whole of the land so held is probably not included, nevertheless, as there has been no change in the manner of collecting this information during these three years, these figures, defective as they are, may be taken as proving that the amount of land reclaimed by this class is rapidly increasing, and that the annual immigration to tea gardens is a gain not only to the tea industry, for which the coolies are in the first instance imported, but also to the general development of the province.

Inland Labour Transport Fund.

53. The following table shows the receipts and disbursements of the Inland Labour Transport Fund in Bengal and Assam during the year 1891-92 :

RECEIPTS.				EXPENDITURE.			
Heads.	Assam figures.	Bengal figures.	Total.	Heads.	Assam figures.	Bengal figures.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.
Medical	58 12 10	.....	58 12 10	Salaries of depôt establishments (including native doctors, hospital assistants, compounders, dressers, clerks, and menials).	8,875 8 3	1,414 8 3	10,290 0 6
Contractors' license fees under section 13	.....	700 0 0	700 0 0	Supplies and services (including diet of patients, value of medical stores, purchase of country medicines, expenses during the prevalence of epidemics, petty construction and repairs) ..	11,955 13 5	23 4 3	11,979 1 8
Recruiters' license fees under section 24	36 14 0	704 0 0	740 14 0	Contingent charges ..	905 10 3	66 5 3	971 15 6
Registration fees under sections 35 and 68	.....	12,877 4 0	12,877 4 0	Grants to dispensaries ..	5,430 0 0	.....	5,430 0 0
Fees for licenses of inland steamer and native boats under section 90.	640 8 0	863 12 0	1,504 4 0	Inspectors, embarkation agents, and other officers ..	15,728 14 10*	6,116 0 8	21,844 15 6
Rates under section 109 ..	53,878 5 6	.....	53,878 5 6	Clerks and servants ..	8,481 9 10	4,676 8 10	13,158 2 8
Fees for use of debarkation depôts..	2,232 6 0	.....	2,232 6 0	Travelling allowances ..	474 15 9	1,108 13 3	1,583 13 0
Diet, &c., charges recovered ..	1,781 14 9	.....	1,781 14 9	Miscellaneous (including rents, percentage of treasury and audit, establishments, refunds, pensions)	2,609 10 7	1,758 0 9	4,367 11 4
Recoveries for sick coolies treated in hospital	702 14 3	.....	702 14 3				
Cash recoveries	.....	0 11 3	0 11 3				
Fines and miscellaneous ..	101 12 8	17 14 0	119 10 8				
Total	59,433 8 0	15,163 9 3	74,597 1 3	Total	54,462 2 11	15,163 9 3	69,625 12 2

* Inclusive of Rs. 9,835-14-5 in adjustment of the deficit in the Bengal portion of the Fund.

By order of the Chief Commissioner of Assam,

F. C. DAUKES,

The 6th September 1892.

Secretary to the Chief Commissioner of Assam.

STATEMENTS.

Return showing the Statistics of Labour Force of the Tea Gardens

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Classes of Labourers.	Number remaining at the end of the year.	Additions made during the year 1891.												Total of columns 2 and 14.
		Imported.			Otherwise than by importation.									
		By contractors.	By garden sardars.	Free labourers and dependents imported direct.	Number giving contract under section 111.	Number giving contract under section 112.	Received from other gardens.	Recovered after having been struck off as deserters.	Remaining after expiry of contracts.	Otherwise obtained.	Births	By transfer to adults from minors.	Total added.	
Cachar .. Act-I labourers (adults) ..	8,113	876	1,520	....	900	173	164	27	....	....	....	....	3,660	11,773
Cachar .. Non-Act labourers Adults ..	47,188	....	....	2,393	....	..	569	..	3,571	4,836	....	916	12,285	59,423
Cachar .. Non-Act labourers Children ..	44,605	....	....	736	....	..	183	..	62	1,259	2,898	....	5,138	49,743
Total	99,856	876	1,520	3,129	900	173	916	27	3,633	6,095	2,898	916	21,083	120,939
Sylhet .. Act-I labourers (adults) ..	8,853	76	410	....	2,140	2	190	27	....	....	....	....	2,845	11,698
Sylhet .. Non-Act labourers Adults ..	41,456	....	....	7,567	....	..	1,261	..	2,413	2,765	....	622	14,628	56,084
Sylhet .. Non-Act labourers Children ..	32,408	....	....	3,891	....	..	615	..	....	883	2,580	....	7,969	40,377
Total	82,717	76	410	11,458	2,140	2	2,066	27	2,413	3,648	2,580	622	25,442	108,159
Sûrma Valley Act-I labourers (adults) ..	16,966	952	1,930	....	3,040	175	354	54	....	....	....	....	6,505	23,471
Sûrma Valley Non-Act labourers Adults ..	88,594	....	....	9,960	....	..	1,830	.	5,984	7,601	....	1,588	26,913	115,507
Sûrma Valley Non-Act labourers Children .	77,013	....	....	4,627	....	..	798	..	62	2,142	5,478	....	13,107	90,120
Total	182,573	952	1,930	14,587	3,040	175	2,982	54	6,046	9,743	5,478	1,588	46,525	229,098
Kámrúp .. Act-I labourers (adults) ..	657	194	173	....	20	1	13	5	....	....	....	....	406	1,063
Kámrúp .. Non-Act labourers Adults ..	1,281	....	....	156	....	..	214	..	31	212	....	93	706	1,987
Kámrúp .. Non-Act labourers Children .	1,074	....	....	179	....	..	90	..	....	77	96	....	442	1,516
Total	3,012	194	173	335	20	1	317	5	31	289	96	93	1,554	4,566
Darrang .. Act-I labourers (adults) ..	18,848	3,304	1,628	....	3,814	91	131	116	....	....	....	....	9,084	27,932
Darrang .. Non-Act labourers Adults ..	11,009	....	....	292	....	..	135	..	2,423	3,494	....	894	7,238	18,247
Darrang .. Non-Act labourers Children .	13,414	....	....	1,837	....	..	58	..	....	255	1,066	....	3,216	16,630
Total	43,271	3,304	1,628	2,129	3,814	91	324	116	2,423	3,749	1,066	894	19,538	62,809
Nowgong .. Act-I labourers (adults) ..	3,280	493	524	....	299	10	90	6	....	....	....	....	1,422	4,672
Nowgong .. Non-Act labourers Adults ..	6,615	....	....	685	....	..	84	..	325	989	....	126	2,209	8,824
Nowgong .. Non-Act labourers Children .	5,454	....	....	492	....	..	33	..	....	148	392	....	1,065	6,519
Total	15,349*	493	524	1,177	299	10	207	6	325	1,137	392	126	4,696	20,045
Sibsagar .. Act-I labourers (adults) ..	35,152	3,990	2,499	....	7,988	557	743	106	....	..	....	....	15,883	51,035
Sibsagar .. Non-Act labourers Adults ..	20,578	....	....	458	....	..	343	..	4,270	2,932	....	819	8,782	29,360
Sibsagar .. Non-Act labourers Children .	35,504	....	....	2,405	....	..	202	..	....	393	2,599	....	5,599	41,103
Total	91,234	3,990	2,499	2,863	7,988	557	1,328	106	4,270	3,245	2,599	819	30,264	121,498
Lakhimpur . Act-I labourers (adults) ..	27,031	7,138	2,487	....	3,095	223	517	196	....	....	....	....	13,656	40,687
Lakhimpur . Not-Act labourers Adults ..	19,376	....	....	1,076	....	..	479	..	3,387	1,941	....	501	7,384	26,760
Lakhimpur . Not-Act labourers Children .	26,294	....	....	2,429	....	..	216	..	....	367	1,926	....	4,938	31,232
Total	72,701	7,138	2,487	3,505	3,095	223	1,212	196	3,387	2,308	1,926	501	25,978	98,679
Brahmaputra Valley. Act-I labourers (adults) ..	84,938	15,119	7,311	....	15,216	882	1,494	429	....	....	....	...	40,451	125,389
Brahmaputra Valley. Non-Act labourers Adults ..	58,859	....	....	2,667	....	..	1,295	..	10,436	9,488	....	2,433	26,319	85,178
Brahmaputra Valley. Non-Act labourers Children ..	81,770	....	....	7,342	....	..	599	..	....	1,240	6,079	....	15,260	97,030
Total	225,567	15,119	7,311	10,009	15,216	882	3,388	429	10,436	10,728	6,079	2,433	82,030	307,597
Total for the Province. Act-I labourers (adults) ..	101,904	16,071	9,241	....	18,256	1,057	1,848	483	....	....	....	....	46,956	148,860
Total for the Province. Non-Act labourers Adults ..	147,453	....	....	12,627	....	..	3,125	..	16,490	17,069	....	3,971	53,282	200,685
Total for the Province. Non-Act labourers Children ..	158,783	....	....	11,969	....	..	1,397	..	62	3,382	11,557	....	28,367	187,150
Total	408,140*	16,071	9,241	24,596	18,256	1,057	6,370	483	16,482	20,471	11,557	3,971	128,555	536,695

* The difference of 10 labourers between these two entries and those shown in column 31 of the statement against Nowgong and total at the end of the Report them in the return for the half-year ending 31st December 1890. These 10 coolies were entered twice, and have, therefore, been omitted n w.

† Revised figures 116.

in the Province of Assam during the year 1891.

16	17	18		19		20	21	22	23	24	25	26	27	28	29	30	31	32	33		34
Deductions made during the year 1891																	Number remaining at the end of the year 1891.	Strength on 1st July 1891.	Annual strength		Death rate per mille.
		Deaths.		Desertions																	
Transfer to other gardens.	Left the garden with permission.	First half year.	Second half year.	First half-year.	Second half-year.	By transfer from minors to adults.	Number giving agreements under section 111.	Number giving agreements under section 112.	Cancelment under section 111, 140, or 177	Cancelment for permanent unfitness under section 122.	Cancelled under section 129.	Suspended under section 130.	Efflux of time, section 141	Redemption, section 142.	Number dissolved by mutual consent.	Total deducted.			First half-year.	Second half-year.	
164	....	216	417	282	282	..	....	....	....	....	..	..	3,391	1	38	4,902	6,871	7,927	8,020	7,899	88 2
569	3,628	885	891	1,258	1 066	..	458	50	....	....	..	..	...	..	..	8,800	50,622	50,685	48,812	50,554	35·7
183	1,735	783	700	198	399	916	....	....	....	....	..	..	....	..	..	4,913	44,530	44,664	44,634	44,747	33 1
916	5,363	1,883	2,008	1,738	1,858	916	458	50	....	....	..	..	3,391	1	38	18,615	102,224	103,076	101,466	102,700	38 0
216	....	196	194	322	224	..	....	....	1	10	..	..	2 771	..	2	3,936	7,762	7,851	8,192	7,646	49 2
229	4,115	727	1 029	1,348	1,185	..	797	4	....	....	..	..	....	.	..	9,379	46,706	46,864	44,010	46,634	38 5
110	1,463	549	534	480	223	622	....	....	....	....	..	..	....	...	..	4,081	36,.96	34,918	32,618	35,557	31 3
555	5,578	1,472	1,757	2,145	1,682	622	797	4	1	10	..	..	2,771	..	2	17,396	90,763	88 913	85,815	89,838	38 7
380	...	412	611	604	617	..	....	....	1	10	..	..	6,162	1	40	8 838	14 633	15,458	16,212	15,045	46 0
798	7,743	1,612	1,920	2,596	2,201	.	1,255	54	....	....	..	..	....	..	..	18,179	97,328	97,049	92,832	97,186	37 1
293	3,198	1,331	1,234	678	722	1,538	....	....	....	....	..	..	....	..	..	8,994	81,126	79,482	78,247	80,804	32 3
1,471	10,941	3,355	3,765	3,878	3,540	1,538	1,255	54	1	10	..	..	6,162	1	40	36,011	193,087	191,989	187,291	192,838	37·4
9	...	44	47	36	39	..	....	....	....	1	..	..	35	..	2	213	850	833	745	842	114·8
6	242	51	30	71	49	..	....	...	....	....	..	..	....	.	..	449	1,788	1,677	1,429	1,557	54 8
..	107	35	23	26	9	93	....	....	....	....	..	..	....	..	..	293	1,223	1,231	1,152	1,227	49 0
15	349	130	100	133	97	93	....	....	....	1	..	..	35	..	2	955	3,611	3,641	3,326	3,626	65 5
131	....	450	590	363	385	..	. ..	....	9	23	..	..	3,615	..	35	5,601	22,331	21,884	20,116	21,857	49 2
135	4,015	186	186	132	186	..	2,330	79	....	....	.	..	....	..	..	7,220	11,[illegible]27	11,506	11,267	11,266	30 9
58	1,108	242	303	6	63	894	....	....	....	....	..	..	....	..	..	2,[illegible]74	13,[illegible]	13,397	13,405	13,677	40 1
324	5,123	878	1,049	5 2	614	894	2,330	79	9	23	..	..	3,615	..	35	15,495	47,814	46,286	44,778	46,800	42 0
90	....	88	170	49	81	..	. ..	....	....	51	..	..	374	..	5	878	3 814	3 726	3,488	3,770	57 0
75	1 285	134	136	126	58	.	229	10	....	....	..	..	....	..	..	2,058	6,771	7 419	7,017	7,095	36 1
31	305	85	109	32	24	126	....	....	....	....	..	..	....	..	.	712	5,[illegible]37	5,824	5,[illegible]4	5,830	33 6
196	1 590	307	365	206	164	126	229	10	....	51	..	..	374	..	5	3,643	16,422	16,969	16,159	16,695	40 7
748	..	651	910	457	538	..	....	....	8	144	..	..	9,619	3	9	18,082	27,953	27,618	36 385	37,785	41 8
345	3,894	271	266	293	288	.	2,080	200	....	....	..	..	....	..	..	8,436	21 024	22,574	21,576	21,799	24 2
197	1,341	411	559	163	164	819	....	....	....	...	..	..	....	..	..	3,654	37,449	36,942	36,223	37,195	26 8
1 285	5,035	1,333	1,725	913	990	819	2,089	200	8	144	..	..	9,619	3	9	25,072	96,4[illegible]6	97,134	94,184	96,780	31 9
537	..	650	843	481	673	..	....	....	....	414	..	..	4,952	2	47	8,599	32,088	30,963	28,997	31,525	49 1
327	3,836	271	[illegible]	178	178	..	2,080	52	....	....	..	..	....	..	.	6 265	10,495	20,921	20,148	20,708	29 5
228	1,636	281	437	119†	62	501	....	....	....	....	..	..	....	..	..	3,264	27,968	27,518	26,956	27,793	26 1
1,092	4,472	1,202	1,623	778	913	501	2,080	52	....	414		..	4,952	2	47	18,128	80,551	79,502	76,101	80,026	36 1
1,[illegible]	. ..	1,883	2,610	1,386	1,716	.	....	....	17	633	.	..	18,595	5	98	28,368	97,076	94,524	89,631	95,780	47 1
888	12,072	918	891	800	760	..	7,628	341	....	....	..	..	....	..	..	24,828	60,815	63,996	61,427	67 425	29 4
514	4,497	1,054	1 431	846	322	2,433	....	...	....	....	..	..	....	.	..	10,597	56,448	85,012	84,391	85,722	[illegible]
[illegible]	16 769	[illegible]	4,862	2 832	2,798	2,433	7,628	341	17	633	..	.	18,595	5	98	[illegible]	244,324	243,532	234,549	248 928	[illegible]
1 [illegible]	.. .	2 295	3 121	1,990	2 [illegible]	..	....	....	18	643		..	24,757	6	138	37,191	111,669	109,982	106,943	110,855	49 [illegible]
1 686	19 [illegible]15	2,525	2,841	3,[illegible]96	2 961		8,883	395	....	....	..	..	....	.	..	42,302	158,183	161,045	154 249	159 614	[illegible]
807	7,895	2,388	2,665	1,624	1,044	3,971	....	....	...	....		..	....	..	..	19,591	167,559	164,494	161,638	166,026	30·7
[illegible]	27,510	7,205	8,627	6,410	6,338	3,971	8,883	395	18	643	.	..	24,757	6	138	96,284	437,411	435,521	421,830	436,404	36 [illegible]

for 1890, is due to the fact that one manager omitted 10 coolies from his return (No 51) for the half-year ending the 30th June 1891, though he had wrongly shown

A [illegible] P O (Judicial) No. 100—300—23·9 92

APPENDIX:

APPENDIX A.

[EXTRACTS FROM REPORTS BY CIVIL SURGEONS AND DEPUTY COMMISSIONERS ON GARDENS UNHEALTHY FOR THE YEAR 1891—(1) ON ACT POPULATION ONLY, (2) ON NON-ACT POPULATION ONLY, AND (3) ON ACT AND NON-ACT POPULATION TAKEN TOGETHER.]

CACHAR.

(1) DALUCHERRA (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
3 cholera.	2 cholera.
1 fever.	
4	2

SECOND HALF.

Act coolies—	Non-Act labourers—
7 cholera.	2 cholera.
5 fever.	1 fever.
12	3

I have advised the manager to have the immediate neighbourhood of the lines and round the huts dug up and well hoed, and to establish a central hospital immediately under the supervision of the medical officer. The water-supply in the garden is good, and I found no fault with it if the coolies can be induced to use none but good water. The local *hát* is well supplied with all necessary food-supplies.

(2) MYRACHERRA (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
4 dysentery.	1 diarrhœa.
	10 dysentery.
4	11

SECOND HALF.

Act coolies—	Non-Act labourers—
2 diarrhœa.	2 debility.
3 debility.	1 diarrhœa.
1 dysentery.	1 dysentery.
1 fever.	2 fever.
7	6

I have advised the manager to have the immediate neighbourhood of the lines and round the huts dug up and well hoed, and to establish a central hospital immediately under the supervision of the medical officer. The water-supply in the garden is good, and I found no fault with it if the coolies can be induced to use none but good water. The local *hát* is well supplied with all necessary food-supplies.

(3) DULARGRAM (*inspected on the 29th March 1892*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
2 cholera.	5 cholera.
2 dysentery.	1 accident.
1 debility.	3 fever.
1 dropsy.	3 dropsy.
1 diarrhœa.	
7	12

SECOND HALF.

Act coolies—	Non-Act labourers—
1 debility.	6 fever.
4 dysentery.	4 diarrhœa.
5 dropsy.	6 dysentery.
2 diarrhœa.	2 cholera.
3 pneumonia.	1 phthisis.
1 bronchitis.	2 infantile.
	1 bronchitis.
	1 debility.
16	23

The garden would not have appeared in the high mortality list had it not been for nine cases of cholera, nine of *beri-beri*, influenza ten, hæmorrhage after childbirth one ; also six of the deaths occurred in old people of 70 to 80 years of age. Some of the deaths from dysentery and diarrhœa were due to the after-effects of influenza and also to *anchylostomiasis*, but no record has been kept. The lines are well situated and drained as often reported. Water-supply good and ample ; a *hát* well supplied with all food stuffs held weekly. The sick list for the day was not heavy ; there are still, however, cases of *anchylostomiasis* amongst the coolies and in the batches of new ones. I have instructed the manager to have the ground near the lines dug up now and again.

Deputy Commissioner—

The Civil Surgeon appears to consider this garden not unhealthy on the whole. It appeared on the 'black list', however, last year also, and will require to be carefully watched.

(4) TIKALPAR (UPPER AND LOWER) AND SALGANGA *(date of inspection not given)*.

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
1 dysentery.	2 dropsy.
1 pneumonia.	1 bronchitis.
	1 phthisis.
	1 pneumonia.
	3 cholera.
	2 diarrhœa.
	5 fever.
	1 leprosy.
2	16

SECOND HALF.

Act coolies—	Non-Act labourers—
7 dysentery.	9 dysentery.
5 dropsy.	3 cholera.
4 fever.	3 diarrhœa.
1 cholera.	2 fever.
2 pneumonia.	1 apoplexy.
19	18

There are three gardens, but all join one another, and the coolies from each work in all, according to the exigencies of the labour required. If the percentage had been separately taken for each garden, the death rate would not have been high on any of them. Influenza was very bad in them, sixty or more being on the sick list at one time. Nearly half the total number of deaths were due to the after-effects of this disease. Cholera caused seven deaths. There does not appear to be much *beri-beri* in this garden, but a few of the dropsy, dysentery, and diarrhœa cases were undoubtedly due to this disease. No separate list was kept showing exactly the number affected by *anchylostomiasis*. All the lines (there are several) are clean and well drained ; huts well built and on good sites ; water (tanks and wells) good and abundant. A river close to some of them (the Tikal) is used for bathing purposes, and no doubt for drinking as well by some of the lines, but they are not supposed to use it for the latter purpose. It is impossible, however, to prevent this. *Hát* well supplied, on the garden, once a week.

Deputy Commissioner—

The second half of the year is usually the more unhealthy ; but the curious feature of the above figures is that while the number of deaths among Act coolies in the second half was more than nine times that in the first half, non-Act labour showed an increase of two only, or about 12 per cent. Probably this is only an accident ; at the same time it is to be regretted that the Civil Surgeon has not in his report touched upon the point.

(5) PATHICHERRA (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
1 dysentery.	2 diarrhœa.
1 dropsy.	4 dropsy.
	1 cholera.
	1 pneumonia.
2	8

SECOND HALF.

Act coolies—	Non-Act labourers—
12 dysentery.	3 pneumonia.
4 dropsy.	2 dysentery.
1 pneumonia.	2 dropsy.
	1 syphilis.
17	8

Beri-beri was very rife amongst newly-imported coolies ; all the dropsy (eleven cases) were fatal ; much of the dysentery and diarrhœa also was due to this disease, but unfortunately no list of those who died from this disease and who were suffering from *anchylostomiasis* has been kept Influenza was also bad in this garden, forty to fifty cases being on the sick list at one time or another. The pneumonia cases (five) were all affected with influenza, and some of the dysentery and diarrhœa, but no separate list has been kept. The *beri-beri* cases arrived mostly too far gone with the disease for the *thymol* or any other treatment to be of any avail. This garden is not singular in this. The lines are neat and clean, and in an open and well-drained spot of ground near the centre of the garden. Water (wells and a hill stream) good and abundant. A well-supplied local *hát* is held on the garden once a week

Deputy Commissioner—

Dysentery is noted as the cause of 15 out of the 35 deaths amongst all classes, but, as stated by the Civil Surgeon, some of these deaths were really due to *anchylostomiasis*. It is unfortunate that no separate record of the deaths due to this disease has been kept.

(6) THAILU (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies –	Non-Act labourers –
2 dysentery.	4 fever.
1 dropsy.	4 dysentery.
1 small-pox.	1 pneumonia.
	2 cholera.
	1 leprosy.
	4 small-pox.
	1 diarrhœa.
4	17

SECOND HALF.

Act coolies—	Non-Act labourers—
1 asthma.	6 fever.
1 miscarriage.	4 pneumonia.
11 dysentery.	2 diarrhœa.
3 dropsy.	9 dysentery.
2 *beri-beri*.	4 cholera.
2 fever.	3 dropsy.
2 pneumonia.	4 influenza.
4 cholera.	1 *beri-beri*.
2 diarrhœa.	
28	33

The same here in this garden as in the other Tarapur Tea Company's factories, *viz.*, severe outbreak of influenza, but of which only four cases have been returned from that disease ; but the medical officer (Dr. Dundee) reports that many of the pneumonia, bronchitis, and dysentery cases were due to the after-effects of the disease proving fatal. There were also numerous cases of *beri-beri*, but no proper record has been kept. There were also 10 fatal cases of cholera.

(7) DEWAN (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
1 cholera.	1 diarrhœa.
2 dropsy.	7 cholera.
	1 worms.
	8 fever.
	2 asthma.
	6 dysentery.
	3 dropsy.
3	28

SECOND HALF.

Act coolies—	Non-Act labourers—
9 dysentery.	1 fever.
1 fever.	2 dysentery.
4 cholera.	3 cholera.
2 pneumonia.	4 dropsy.
3 dropsy.	2 pneumonia.
1 apoplexy.	3 child-bed.
20	15

Influenza was bad in this garden, and accounts for all the pneumonia and some of the dysentery cases; but no distinction has been made in the returns as to what coolies died of it after the weakening effects of the epidemic. *Anchylostomiasis* was also prevalent. All the dropsy (12 cases) and some of the dysentery cases were due to this disease. Cholera (15 cases) fatal.

(10) ROSEKANDI, ROSEPUR, AND ETIPUR (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
3 cholera.	11 cholera.
2 *anchylostomiasis.*	3 dysentery.
	2 fever.
	2 bronchitis.
	2 *anchylostomiasis.*
	1 tetanus.
	1 measles.
	1 hepatitis.
	1 pneumonia.
	2 convulsions.
5	26

SECOND HALF.

Act coolies—	Non-Act labourers—
15 *anchylostomiasis.*	13 *anchylostomiasis.*
2 diarrhœa.	2 cholera.
3 dysentery.	2 pneumonia.
1 pneumonia.	2 bronchitis.
1 asthma.	2 dysentery.
	1 fever.
22	22

The death rate has been 16 from cholera, 32 from *anchylostomiasis.* Most of the pneumonia, bronchitis, and fever cases were undoubtedly due to a weakening of the system after influenza, a great number of the coolies being affected by this disease during last year. I beg to send a copy of Mr. Mounsey's letter, dated the 17th February 1892, to me on the present high mortality, which will show the steps he is taking to prevent, as far as possible, more excessive mortality. I would draw attention more particularly to the wells and means of procuring water that he is introducing and the total removing of the lines. This latter I consider of vast importance.

Copy of a letter from the Manager of Rosekandi Tea Estate, dated the 17th February 1892, to the Civil Surgeon, Cachar.

Your letter of the 13th instant to hand regarding the high mortality on the garden during the half-year ending 31st December 1891. The one return covers the three gardens—Rosekandi, Rosepur, (Mains), and Etipur. Most of the Act coolies are at Mains; and from the returns you will see that

rom 184 Act coolies there were 22 deaths (10·75 per cent.), 15 of which were from *beri-beri*. Out of 1,559 non-Act coolies, 21 died, making a percentage of 1·33. The total of Act and non-Act coolies was therefore 1,743, and the total number of deaths 43, or 2·46 per cent. From this you will see that the high mortality was only among the Act coolies, and that they were mostly carried off by *beri-beri*. I have done away with the Mains station altogether, and am building lines on an entirely new site. I am putting down well-rings from Burn and Company, Calcutta, and each well will be covered in, and will have a pump and iron cistern. I shall have no tanks at the station. There is a good stream near, in which the coolies can wash. There was a great deal of fever at Mains, which very possibly was really influenza.

Deputy Commissioner—

This garden was unhealthy upon Act labour only. Thirty-two deaths are recorded as due to *anchylostomiasis*, against eighteen from the same cause last year, but this increase is probably wholly due to improved diagnosis. Nothing appears to have been left undone, and we can now only wait and see what the results of the current year are.

(11) KUMBIRGRAM (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
2 cholera.	5 cholera.
1 diarrhœa.	2 pneumonia.
1 fever.	1 bronchitis.
1 dysentery.	4 dysentery.
	1 apoplexy.
	1 jaundice.
	4 fever.
5	18

SECOND HALF.

Act coolies—	Non-Act labourers—
3 dysentery.	1 cholera.
1 phthisis.	1 drowning.
1 pneumonia.	1 bronchitis.
1 insanity.	2 pneumonia.
	1 fever.
	7 dysentery.
	3 diarrhœa.
	2 jaundice.
6	18

The deaths are mostly due to the after-effects of the prevailing epidemic—influenza, with the exception of cholera (8), apoplexy (1), jaundice (3), drowning (1). All of these were entered as pulmonary complaints—pneumonia, bronchitis, phthisis, and many of the dysentery and diarrhœa cases were all attacked by influenza. *Beri-beri* has not affected this garden to any great extent.

(12) SONACHERRA (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
6 dysentery.	3 bronchitis.
1 fever.	3 dysentery.
1 dropsy.	2 fever.
	1 infantile.
8	9

SECOND HALF.

Act coolies—	Non-Act labourers—
2 dropsy.	1 cholera.
1 dysentery.	2 dysentery.
1 rheumatism.	1 apoplexy.
	2 convulsions
	2 fever.
4	8

I have advised the manager to have the immediate neighbourhood of the lines and round the huts dug up and well hoed, and to establish a central hospital immediately under the supervision of the medical officer. The water-supply in the garden is good, and I found no fault with it if the coolies can be induced to use none but good water. The local *hát* is well supplied with all necessary food-supplies.

(13) MARTICHERRA (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
2 cholera.	6 cholera.
1 diarrhœa.	1 phthisis.
1 dysentery.	1 dropsy.
1 fever.	1 bronchitis.
	1 fever.
	1 diarrhœa.
5	11

SECOND HALF.

Act coolies—	Non-Act labourers—
3 cholera.	2 cholera.
5 dysentery.	1 dropsy.
	1 dysentery.
	2 fever.
8	6

Deaths of children not given. The deaths have been principally due to cholera (13). Influenza also affected this garden like all the neighbouring ones. There have been a few cases of *anchylostomiasis* also amongst the coolie population. The water-supply here is good (wells and hill streams), and the lines are well placed, and there is good natural drainage. The usual weekly *hát* is held here, well supplied with all necessary food stuffs.

Deputy Commissioner—

This garden was unhealthy also in 1888 and 1889. This year its position appears to be due chiefly, if not entirely, to an outbreak of cholera. I inspected this garden in December 1891, and am satisfied that all reasonable care is taken of the coolies.

(14) LALAMUKH OR HASIURA (*inspected on the 17th December 1891*).

Civil Surgeon—

The whole of the coolies were mustered for my inspection. I noticed only a few suffering with the symptoms of *anchylostomiasis*. I may here mention that Mr. Ross, the manager, has the coolies all mustered every Monday, and he and the native doctor examine each individual coolie, and any showing signs of disease of any kind are at once sent to hospital. This plan has worked well, and if other gardens would do the same, much benefit would be derived in the early detection of disease. The number of sick on the day of inspection was as follows :

	4 (*beri-beri*) *anchylostomiasis.*
	1 debility.
	2 dysentery.
	1 bronchitis.
	1 rheumatism.
Total ...	9

A very slight sick list, considering that there are upwards of 221 Act coolies and 1,010 non-Act coolies, a total of 1,231.

The number of deaths from all causes from 1st January 1891 to date of my inspection was—

	9 *anchylostomiasis.*
	13 dysentery.*
	4 dropsy.
	4 cholera.
	1 diarrhœa.
	1 sunstroke.
Total ...	32

* Two of the dysentery cases had had *anchylostomiasis*, and should properly be put under this head.

The trench latrines are being tried, but I fear for some time to come it will be a most difficult matter to induce the coolies to use them The wells have been sunk and improved and made *pucca*, and are supplied with pumps, whilst the use of the river and *bhil* water is strictly prohibited, as far as possible. The defiling of the banks of the river is also prevented, but it is a most difficult matter to prevent this, or indeed to prevent coolies easing themselves near their huts or in any convenient place near by They are not singular in this. I consider that Lalamukh tea garden is a healthy one, if, originally, healthy coolies are imported. The manager (Mr. Ross) is a tea planter of long experience, and one who pays considerable attention to the health and well-being of his coolies. The system of working from 8 a.m. to 4 p.m. is adopted only in the cold weather, and is one that the coolies themselves much prefer, and it may safely be left to them to do as they like in the matter. They eat an early meal before leaving for work It must be remembered that it is barely light before 6-30 a.m. in the cold season. During the rains and hot weather the coolies are rung in in the middle of the day, and have from two to three hours for cooking and eating at that season.

Deputy Commissioner—

This report seems to call for no remarks from me. The manager appears to be fully alive to the situation and to be doing all that can be expected of him. The system noticed by the Civil Surgeon of holding a weekly hospital parade is a most excellent one, and I shall see what I can do to induce other managers to adopt it.

(15) LALACHERRA (*inspected on the 4th March 1892*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
1 dysentery.	4 cholera.
1 diarrhœa.	8 diarrhœa.
2 dropsy.	2 dysentery.
	1 dropsy.
	2 fever.
	2 bronchitis.
	1 jaundice.
4	20

SECOND HALF.

Act coolies—	Non-Act labourers—
2 cholera.	2 cholera.
3 dysentery.	5 diarrhœa.
1 diarrhœa.	5 dysentery.
2 dropsy.	1 dropsy.
1 bronchitis.	7 fever.
	1 bronchitis.
	1 other disease.
9	22

This garden has suffered, like most of the other high mortality ones, from the importation of most indifferent depôt coolies, in most of whom seeds of the disease (*anchylostomiasis*) were apparent. Cholera accounts for eight deaths ; bronchitis and other chest complaints for five. I saw the sick on the day of my visit, and many of them were still suffering with and from *beri-beri*, whilst on inspecting the coolies going to work, I detected and pointed out to the manager and native doctor others with the seeds of the disease well marked on them. I have no fault to find with the lines or water-supply ; in this garden, as in so many of the Cachar gardens, it is difficult to induce, or even force, coolies to use none but fairly good water. There are wells and tanks in the lines on this garden for their use, but they will use the Lala stream and Katakhal river. The water, however, in these two streams is not so bad just now or even in the height of the rains. There is a good weekly market, and well supplied. I have suggested to the manager that he should have on one particular day in the week a full and complete muster of all the coolies, and that the medical officer and the native doctor should pass along the lines, detecting and picking out any coolie who shows signs of illness, and so take the disease under treatment at once. This system is carried out at a neighbouring garden (Lalamukh), and has, I believe, worked well. All sick coolies are fed, on the hotel system, twice a day, and receive rice, dal, fish, &c., besides plenty of vegetables. Lines under repair, but well built and drained. *Hát* on garden every week.

Deputy Commissioner—

The weekly hospital parade suggested by the Civil Surgeon is a good move. The garden is unhealthy upon Act labour only ; and as the mean strength during the year was only 133, I do not think it necessary to make any remarks.

(16) LAKHIPUR (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
1 cholera.*	9 cholera.
1 dysentery.	4 small-pox.
	1 apoplexy.
	3 dysentery.
	3 diarrhœa.
	1 laryngismus stridulus.
	1 fever.
2	22

SECOND HALF

Act coolies—	Non-Act labourers—
1 dysentery.	1 dysentery.
	1 drowned.
1	2

This garden appears to have been fairly free from influenza. There were some cases, but not to any great extent, nor fatal. Cholera and small-pox and dysentery appeared to have caused the most of the deaths. Some of the dysentery was due to *anchylostomiasis*, though I noticed no very marked cases amongst the coolies. It has hitherto been a fairly healthy garden, drainage and lines good and well situated, and *hát* well supplied. Of the 27 deaths, half were due to cholera and small-pox, whilst one of them—a cholera case—should not be put down to the discredit of the garden, the man having died at Fenchuganj on his way up.

(17) DHUARBAND (*inspected on the 2nd March 1892*).

Civil Surgeon—

ALL NON-ACT LABOURERS.

First half—	Second half—
37 cholera.	1 diarrhœa
1 leprosy.	5 dysentery.
3 debility.	4 debility
1 dysentery.	1 pneumonia.
2 bronchitis.	1 *beri-beri*
2 fever	4 infantile.
4 infantile.	1 convulsions.
1 pneumonia	1 fever.
51	18

The mortality during the first half of 1891 was mainly due to cholera (37 cases in all), and was reported. During the second half, of the 18 deaths I find that only one had been entered as *beri-beri*, whereas of the remaining 17, 10 at least are due to this cause, but had been entered under the usual symptomatic diagnosis of the native doctor in charge, as being due to dysentery, diarrhœa, debility, whereas they should have been entered as due to *anchylostomiasis*. One case of pneumonia, four infantile disease, one fever, and one convulsions made up the eighteen deaths. Owing to the excessive mortality of the first half of the year, coolies (all depôt ones) had to be imported to fill up vacancies ; and, as usual, these coolies were all more or less diseased, principally suffering from *beri-beri* I saw a batch just arrived on the day of my visit, and showed the manager (Mr. Peter) that most of the coolies were suffering from the disease The lines are well attended to and clean, and drainage good Wells are provided ; and, so far as possible, the coolies are expected to take this water for drinking and no other purposes. But, as usual, they will use the river—a small stream running through or near their lines. *Hát* held on the garden weekly, and well provided with everything.

Deputy Commissioner—

The high mortality this year is principally due to the epidemic of cholera in the first half of the year, but it is to be feared that the new importations of bad coolies may bring this garden on the black list again

* Should not have been entered; he died at Fenchuganj on the way up

(18) NOARBAND (*inspected on the 2nd March 1892*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
1 cholera.	20 cholera.
	5 dysentery.
	1 syphilis.
	1 infantile.
1	27

SECOND HALF.

Act coolies—	Non-Act labourers—
None.	1 cholera.
	2 dropsy.
	3

Of the total number of deaths above given (*viz.*, 31), 22, or two-thirds, were from cholera, the outbreak being similar to that on the Dhuarband tea garden and occurring about the same time; otherwise the garden is a healthy one, and has hitherto been so. There is close and frequent communication between the two gardens, and, no doubt, the Noarband coolies caught the infection from Dhuarband. *Beri-beri* accounts for the two deaths from dropsy, and, no doubt, for one or two of the deaths from dysentery. The garden is also on the high road to Lushai-land. The lines are well placed, and high; drainage, natural and sufficient; water (wells and streams) good; *hát* weekly, well supplied.

Deputy Commissioner—

I have no remarks. The high mortality here was, as shown, entirely due to cholera in the first half of the year.

(19) DUDPATLI TILA (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
	3 diarrhœa.
	1 dysentery.
	3 asthma.
	6 fever.
None.	17 small-pox.
	14 cholera.
	1 child-bed.
	5 croup.
	50

SECOND HALF.

Act coolies—	Non-Act labourers—
	3 small-pox.
	1 bronchitis.
	12 fever.
	13 dysentery.
None.	2 drowned.
	1 cholera.
	2 debility.
	1 abortion.
	1 dropsy.
	1 diarrhœa.
	37

A very severe outbreak of small-pox, which was traced to some *ganaks*, who had got into the lines without the knowledge of the manager and commenced inoculating the coolies, started the disease, from which cause it rapidly spread, affecting men, women, and children. Twenty deaths are due to this cause alone. It is to be hoped that inoculation will soon cease to exist in Cachar. 15 deaths are due to cholera. Of 18 deaths from dysentery and diarrhœa, many succumbed after small-pox when in a weakly state of health. There have been a few cases of *anchylostomiasis*. I have still in the dispensary a woman suffering from this disease. Several of the

deaths attributed to dysentery and to debility and dropsy were from this disease. Amongst the infants and children five deaths occurred from croup, probably infection. This garden had no Act coolies, except two in the beginning of the year. It has hitherto been a healthy garden, and would not have been abnormally unhealthy but for the small-pox and cholera. The lines are good and well drained, and since these diseases have ceased they have been cleaned and disinfected. The latter was also done during the outbreak. Drains well attended to. *Hát* on the garden, and, besides, the estate is just opposite to Silchar.

Deputy Commissioner—

I have no remarks to make beyond those already recorded in the Civil Surgeon's report on Bara Dudpatli. The high mortality here also was purely accidental.

(20) BANDHU (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
None.	4 fever. 1 diarrhœa. — 5 —

SECOND HALF.

Act coolies—	Non-Act labourers—
None.	3 fever. 4 dropsy. 2 dysentery. 2 diarrhœa. 1 bronchitis. 1 pneumonia. — 13 —

There were no deaths amongst the Act coolies at all last year, and the high proportion of those amongst the free labourers is based on a small average number of coolies. Influenza was here prevalent, and to the effects of that disease many of the deaths are due. *Anchylostomiasis* does not appear to have been prevalent, due probably to the reason that this is a new garden, and the Superintendent (Mr. Scott Elliot) had only carefully selected coolies sent to the garden.

(21) DUDPATLI BARA AND CHALTAKANDI (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
1 cholera. 3 dysentery. — 4 —	6 fever. 9 dysentery. 40 small-pox. 10 cholera. 1 dropsy. 1 debility. 1 bite from jackals. 3 tetanus. 1 bronchitis. 3 diarrhœa. — 75 —

SECOND HALF.

Act coolies—	Non-Act labourers—
2 dropsy. 3 dysentery. 2 debility. — 7 —	12 small-pox. 6 dysentery. 9 fever. 2 old age. 2 dropsy. 1 fever. 1 leprosy. 1 bronchitis 1 dropsy. 1 debility. — 36 —

This garden, like Dudpatli Tila, was affected about the same time by an outbreak of small-pox and cholera. Fifty-two deaths occurred from the former and eleven from the latter disease. *Anchylostomiasis* also has to do with some of the dysentery, dropsy, and debility cases. I have often cases of this disease sent to me for treatment in the dispensary. The small-pox was undoubtedly brought into the garden by *ganaks*, who started inoculation without the leave or knowledge of the manager. The lines (there are two sets) are well built and attended to. Drainage good. Water-supply—wells and tanks. *Hát* well supplied on the garden. Disinfection and destruction of the huts affected by small-pox, cholera, &c., was undertaken during and since the epidemic.

Deputy Commissioner—

The high mortality here is, as noted by the Civil Surgeon, entirely due to small-pox and cholera, nearly half the total number of deaths being due to the former disease alone. I have elsewhere remarked on the futility of prohibiting inoculation in the Silchar station limits, while *ganaks* are permitted to work their will unrestrained outside these limits. I only trust that with a clear case like the present before him, the Chief Commissioner will see his way to extending the prohibition of this practice to the whole district.

(22) DAYAPUR AND ATAICHERRA (*inspected on the 21st February 1892*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
1 pneumonia.	1 diarrhœa.
1 fever.	1 cholera.
1 cholera.	1 dropsy.
	3 dysentery.
	1 accidental.
	1 pneumonia.
3	8

SECOND HALF.

Act coolies—	Non-Act labourers—
11 dysentery.	2 dysentery.
15 diarrhœa.	1 diarrhœa.
1 leprosy.	1 fever.
1 dropsy.	1 pneumonia.
1 pneumonia.	2 dropsy.
1 fever.	1 apoplexy.
30	8

The mortality here has been due to an epidemic of influenza, from the after effects of which all of the deaths under pneumonia (four in all) are due. The manager informs me that he had for days a large number of coolies on the sick list from this disease (influenza). *Beri-beri* (*anchylostomiasis*) was also very much amongst the coolies, mostly so in the new batches that were imported. Dr. Vacy Lyle, the medical officer of the garden, states that almost all the diarrhœa, dysentery, and dropsy fatal cases are due to this disease. The manager had to accept a large number of new coolies forced on him against his will by the agents of the garden. They (the coolies) were all depôt coolies—weakly and diseased, and amongst them *anchylostomiasis* was greatly prevalent. The lines are well drained and kept clean. Water-supply good and ample. Usual garden market held once a week, well supplied with food stuffs and vegetables.

(23) ABONGCHERRA (*date of inspection not given*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
3 cholera.	2 cholera.
1 heart disease.	1 dysentery.
1 fever.	
5	3

SECOND HALF.

Act coolies—	Non-Act labourers—
6 dysentery.	4 cholera.
1 diarrhœa.	3 fever.
1 cholera.	1 dysentery.
2 fever.	1 dropsy.
1 debility.	1 bronchitis.
11	10

I have advised the manager to have the immediate neighbourhood of the lines and round the huts dug up and well hoed, and to establish a central hospital immediately under the supervision of the medical officer. The water-supply in the garden is good, and I found no fault with it if the coolies can be induced to use none but good water. The local *hát* is well supplied with all necessary food-supplies.

(24) SCOTTPUR (*inspected on the 22nd February 1892*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
6 dysentery.	3 diarrhœa.
1 diarrhœa.	3 fever.
2 fever.	2 dropsy.
1 dropsy.	
1 dyspepsia.	
1 pneumonia.	
12	8

SECOND HALF.

Act coolies—	Non-Act labourers—
5 diarrhœa.	4 diarrhœa.
4 fever.	5 fever.
10 dropsy.	1 dropsy.
8 dysentery.	3 dysentery.
	1 bronchitis.
	1 cholera.
27	15

The mortality here is entirely due to *beri-beri* (*anchylostomiasis*), and occurred mostly in a very bad batch of coolies imported in 1891. All the dropsy (14 cases) are due to this cause, and most of the dysentery and diarrhœa cases. I saw the sick on the day of inspection at the garden hospital, and most of them were suffering from the above disease. Very few of the old coolies are ill or even on the sick list. Influenza was also prevalent, but Dr. Dundee, the medical officer, states that to the former disease (*anchylostomiasis*) the excessive death rate is due. The lines themselves should be healthy, as they are placed high on *tilas* and are naturally well drained. Water-supply, mostly from wells, good. A good market, well supplied, is also held on the garden once a week.

Deputy Commissioner—

The state of things revealed in this report can only be prevented at recruiting centres. If the coolies once come to Cachar, no amount of care will prevent their dying until regular medical examination of all coolies at all recruiting centres, more especially those in the North-Western Provinces, is insisted upon and the bad coolies weeded out. We shall always have gardens like this unhealthy from no fault of their own. Agents apparently will not understand this, and the only thing to be done is to force it upon them.

(25) BADARPUR (*inspected on the 13th February 1892*).

Civil Surgeon—

FIRST HALF.

Act coolies—	Non-Act labourers—
3 cholera.	15 cholera.
	1 small-pox.
	1 dysentery.
	1 diarrhœa.
	6 fever.
	1 burns.
3	25

SECOND HALF.

Act coolies—	Non-Act labourers—
None.	7 dysentery.
	1 diarrhœa.
	3 dropsy.
	1 convulsions.
	1 phthisis.
	4 fever.
	17

This garden, except for cholera, would have been healthy this past year. There were upwards of eighteen cases of this disease. I may also point out that amongst the Act coolies, except for cholera, there would have been no deaths. Fifteen cases of cholera were fatal and *anchylostomiasis* accounts for some six of the deaths amongst free labourers, although the deaths were attributed to dysentery and dropsy. This garden's coolie lines are unfortunately placed for any epidemic that may occur, being close to the main road from Sylhet to Cachar, and the cholera was undoubtedly brought into the lines by the passing troops and coolies for the Lushai and Manipur expeditions. The manager (Mr. Lyon Clark) is however, to alleviate this, moving a great number of the huts across the river to a site on an abandoned *tila* garden. I may also mention that many cases of influenza were amongst the coolies, and this accounts for some of the deaths, but unfortunately no list has been kept, showing who were affected by this disease.

Deputy Commissioner—

The high mortality on this garden is, as noted by the Civil Surgeon, purely accidental, and calls for no remarks.

SYLHET.

(1) Ghillacherra (*inspected on the 13th July 1892*).

Civil Surgeon—

1. The garden was very unhealthy during the last year. There were 41 deaths,—20 among the Act and 21 among the non-Act coolies and dependents. A large number of these deaths (12) among the Act coolies were due to dropsy (*anchylostomiasis*), and occurred chiefly among the newly imported coolies. Most of them came into the garden with the disease in its incipient stage. There were 13 deaths among the children, mostly from croup, bronchitis, pneumonia, small-pox, and bowel complaints.

2. The following sanitary defects were noticed during the present inspection :

(*a*) The lines are kept very dirty. They are overcrowded. Some of the huts should be pulled down to allow a free flow of air into them. The drainage is defective.
(*b*) There are five (semi-*pucca*) wells ; of these two dry up every dry season. These should be deepened. All the wells should have force pumps and filtering tanks attached to them.
(*c*) All newly arrived Act-I coolies should be fed by the manager for four months. A feeding place should be erected for them close to the hospital.
(*d*) There must be a proper hospital well furnished with medicines and appliances.
(*e*) A small incinerator should be purchased from Messrs. T. E. Thomson and Co., Calcutta, for burning the excreta of patients suffering from *anchylostomiasis*.
(*f*) Children when seedy should be fed from the hospital. The mother should get leave and subsistence allowance.

Deputy Commissioner—

The water-supply and sanitation of this garden seem to be defective. No explanation appears to be forthcoming of the large number of deaths among non-Act coolies, the majority of whom were probably old residents on the garden, and not newly imported.

(2) Lakhaicherra (*inspected on the 14th July 1892*).

Civil Surgeon—

Death rate among the Act-I coolies is high, the percentage of deaths to strength being 9. The garden has been unhealthy since 1890 owing to heavy deaths among the Act-I coolies. The causes of unhealthiness were—

(*a*) Bad lines.
(*b*) Bad class of new coolies ; many of them came up suffering from *anchylostomiasis*.
(*c*) Imperfect and insufficient hospital arrangements.
(*d*) Defective water-supply.

The following improvements have been made since last inspection (19th June 1891) :

(*a*) The old lines are being gradually given up and new lines are being built on *tilas*.
(*b*) A proper hospital has been built, and it is furnished with all necessary appliances.
(*c*) Seven semi-*pucca* wells have been constructed.

Recommendations.

1. The water-supply must be further improved. Three *pucca* wells fitted with force pumps and filtering tanks should be constructed next cold weather. The present wells are not protected properly, and the water is turbid, and contains a large quantity of suspended matter.
2. The old lines should be entirely given up as quickly as possible.
3. The 'Hotel system' for feeding newly imported Act-I coolies should be started without delay.

Deputy Commissioner—

New coolies seem to suffer much more than old hands.

(3) KAJURICHERRA (*inspected on the 15th July 1892*).

Civil Surgeon—

This garden has been unhealthy since 1889 owing to high death rate among the Act-I coolies. During my inspection the percentage of deaths to strength among the Act-I coolies was 9·11, the largest number of deaths being due to anæmia, dropsy, dysentery, diarrhœa, and cholera. The following sanitary improvements should be made in the garden :

(*a*) *Lines.*—They are overcrowded and damp. A few huts here and there should be pulled down to allow free ventilation in the lines, and some of the trees should be cut down, as they also obstruct ventilation and keep the place damp. The present drains should be deepened, and should have a proper outfall.

(*b*) *Water-supply.*—The semi-*pucca* wells should be gradually given up and replaced by *pucca* deep wells fitted with force pumps and filtering tanks.

(*c*) The 'hotel system' of feeding newly imported Act-I coolies should be carried on in this garden as soon as possible.

(*d*) The number of cases of *anchylostomiasis* treated in this garden since the beginning of the year is 80. There are at present ten cases of the disease under treatment. I would recommend that an incinerator (from Messrs. T. E. Thomson and Co., Calcutta) should be purchased, and the stools of these patients burnt up in it.

Deputy Commissioner—

It will be noticed that the death rate was high only among Act coolies, while non-Act coolies seemed to enjoy good health. This seems to show that the climate of the garden is only hurtful to new arrivals. It would be a good thing if a *jardin d'acclimatation* for new coolies could be maintained.

(4) BARMACHERRA (*inspected on the 14th July 1892*).

Civil Surgeon—

The garden has been unhealthy for Act coolies. There have been 22 deaths since last inspection, the percentage of deaths to strength being 9·52. The sanitary condition and the general health of the Act coolies during my inspection were not satisfactory.

The lines—Are on the flat. The huts generally have low plinths, and are damp, owing partly to the presence of a large number of trees in the lines. The drainage also requires improvement.

Water-supply.—Unsatisfactory; the present wells should be gradually given up, and three deep *pucca* wells fitted with force pumps and filtering tanks should be constructed next cold weather.

Food-supply and hour of feeding.—The food stuffs purchased by the coolies from the *hát* are of fair quality. But I think that a large number of new coolies do not buy enough food to keep up proper health and strength. I may also state that the time allowed them for cooking their midday meal in this wet weather is not sufficient. Many have to go a long distance to collect firewood, and the wood, being very often dripping wet, takes a long time to burn properly, so the coolies have often to resume work before the food is quite ready.

Hotel system.—I strongly recommend that the 'hotel system' of feeding coolies should be introduced into this garden. All new coolies should be fed by the manager for four months after their arrival in the garden.

Hospital.—The new hospital is satisfactory. The supply of medicines is ample. The cases of *anchylostomiasis* are carefully selected and treated in the hospital.

(5) MIRZAPUR (*inspected on the 16th July 1892*).

Civil Surgeon—

The garden was unhealthy last year, and the deaths were mostly due to cholera, bowel complaints and dropsy. During the first half of the current year, the mortality among the Act coolies is 2·3, per cent., and among the non-Act coolies 3·6 per cent. The deaths occurred chiefly from cholera, dropsy, and lung complaints.

The lines.—All the three sets of lines are kept dirty. The huts have no plinths. The lines in the middle set (*b*) have been built only recently on new clearances. The lines in the south set (on the flat) are the unhealthiest of all. Most of the deaths occurred in the last two sets, and these should be gradually given up.

Water-supply.—The main source of supply is from the Kullachorra river, where the coolies also bathe. The *kutcha* wells dry up in the cold weather, and are situated in the lines. Three *pucca* wells should be sunk next cold weather.

General health of the coolies.—Not satisfactory. There are many cases of anæmia and *anchylostomiasis* in the garden. The doctor Babu not being a qualified man, does not know how to treat these cases properly. There is no proper hospital, and the supply of medicines and medical comforts is inadequate. A proper hospital, a qualified native doctor, and a good supply of medicines and medical comforts are urgently required.

Labour force and wages.—The labour force is inadequate, and the wages are generally low.

Deputy Commissioner—

This appears to be a very badly managed garden. The coolies are badly housed, have bad water to drink, and no proper medical attention.

(6) LALCHAND (*inspected on the 23rd May 1892*).

Civil Surgeon—

The garden was unhealthy in 1891. There were 112 deaths, of which 66 occurred among the newly arrived coolies and dependents from the North-Western Provinces, and 46 among the jungly and Bengali coolies and dependents from Ranchi, Bankura, and Burdwan. Of the total number of deaths, 54 occurred among the children. The causes of deaths were fever, debility, and bowel complaints. The garden has a visiting European medical man and a qualified resident native doctor, so the sick coolies had proper medical treatment, and Rs. 521-8-6 were expended during the year on medical comforts. This year (1892) there have been 34 deaths up to date of inspection,—26 amongst adults and 6 amongst children, mostly from cholera and bowel complaints. The large number of deaths amongst children was largely due to want of proper nourishment, as the mothers were in many cases too ill to look after their children. During my inspection I noticed the following sanitary defects, which must be removed as soon as possible:

(*a*) The lines were very damp; too many large trees were allowed to grow about the place. These must be cut down.
(*b*) The *kutcha* wells must be given up and six *pucca* deep wells constructed without any delay. The water-supply of the garden is at present bad.
(*c*) A proper hospital should be built for treating serious cases.

2. *Anchylostomiasis.*—I noticed about 7 anæmic coolies among the 400 people that were mustered. They were all cases of *beri-beri*. They should be taken in hand in time and properly treated by *thymol*. In the sick register I found three cases of *anchylostomiasis* treated up to date, and they all recovered under *thymol* treatment. There was no case of *kála-azár* in the garden.

Deputy Commissioner—

Dr. Banerji's report is a damaging one. The main defect of the garden appears to be want of good drinking water. The mortality up to date this year is at the rate of 10 per cent. per annum. The garden seems to be peculiarly fatal to newly-arrived coolies, and it seems advisable to prohibit importation of new coolies into it until it becomes healthier.

(7) CHANDKHIRA (*inspected on the 13th June 1892*).

Civil Surgeon—

The garden has been unhealthy since last inspection, the death rate being 11·2 per cent. The causes of unhealthiness are—

(*a*) Bad class of North-Western Provinces coolies imported during the past two years.
(*b*) Bad water-supply. The *kutcha* wells must be given up, and *pucca* wells should be sunk with as little delay as possible. The new tank should be fenced in, and its water should be filtered before being used by the coolies. Its water has at present the colour and consistence of pea soup.
(*c*) There was no hospital before; one has been built just now. The native doctor is worthless, and has no qualifications of any kind. He should be replaced by a properly qualified native doctor. There is very little medicine in store in the garden There should be a good supply this year.
(*d*) The lines have been improved recently. The old lines are being gradually given up. But the new huts have no plinths; there should be 2 feet plinths for each hut.
(*e*) The largest number of deaths have been due to dysentery and dropsy, and chiefly among the newly imported North-Western Provinces coolies. I believe many of these were cases of *anchylostomiasis*, and if they had been diagnosed in time, many lives could have been saved.
(*f*) I paraded all the coolies. I noticed only four cases of *anchylostomiasis* among them. I made them over to the doctor Babu for proper treatment by *thymol*.
(*g*) I believe that a feeding place for all new coolies is urgently required in this garden. All new coolies should be fed by the manager for at least six months.

Deputy Commissioner—

The Civil Surgeon's report shows that the garden is unfit for human habitation, and that the manager has neglected the commonest sanitary precautions. The coolies are unfortunately not under the Act.

(8) SONAKHIRA (*inspected on the 13th June 1892*).

Civil Surgeon—

The garden is fairly healthy at present, the death rate being below 7 per cent. I paraded all the coolies Many of the new coolies appeared weak and anæmic. There were eight cases of *anchylostomiasis* among them. They arrived in the garden very recently. The manager says he has just started feeding all the new coolies. I consider this a very satisfactory arrangement.

2. The water-supply of the garden must be improved; *kutcha* wells must be given up, and *pucca* wells built in their place

3. Line sweeper should be kept to keep the lines clean. The huts should have high plinths.

4. There must be a proper hospital and a qualified resident doctor Babu in the garden.

Deputy Commissioner—

This garden is now healthy in spite of the unfavourable sanitary conditions.

(9) LALKHIRA (*inspected on the 29th June 1892*).

Civil Surgeon—

I attribute a good deal of the ill-health of the coolies in this garden to—

First.—*Kutcha* wells containing bad water.
Second.—Barrack fashion lines not on plinths.
Third.—Bad drainage of the lines.
Fourth.—Total incompetence of the doctor Babu.
Fifth.—New coolies living on new clearances without special sanitary arrangements.

I would recommend—

First.—*Pucca* wells and pumps.
Second.—18 feet x 12 feet detached lines on raised 2-feet plinths built in lines with 8 feet spaces between each house and 14 feet roads between each lines, having drains at back and front of lines.
Third.—A new doctor Babu with a diploma or a certificate from the Civil Surgeon.
Fourth.—No new coolies should live in huts built on new clearances, without special sanitary arrangements.

Deputy Commissioner—

This garden seems to be unsuitable for the residence of coolies. There is, however, only one Act coolie on it.

KÁMRÚP.

(1) AMCHONG (*inspected on the 11th April 1892*).

Civil Surgeon—

This cannot be called an unhealthy garden. It was, I believe, never on the unhealthy list until this year. The mortality of Act coolies was high, but it was partly because bad coolies were sent up, and partly because influenza was prevalent. There seems to be no *kála-azár* here, and this alone should keep it on the healthy list. No child has died on the garden for over a year, and the last inspection report seems to disregard infants, as none are shown on the garden as dependents.

Deputy Commissioner—

This garden was brought on the unhealthy list by 12 deaths, giving a percentage of 9·7 among Act coolies. Of these deaths, four were from influenza, two from *kála-azár*, one from childbirth. There is no influenza on the garden now ; and after mustering the coolies the Civil Surgeon reports that there is no *kála-azár*. The garden is healthy, and no action appears necessary.

(2) RANI (*inspected on the 15th April 1892*).

Civil Surgeon—

It is impossible to find out the cause of the supposed high mortality last year. Nine deaths are said to have occurred, eight from *kála-azár* and one from fever. I know of no distinguishing mark between *kála-azár* and malarial fever. It is like this, as far as I can make out—the old man must die, but the young man may. When a man's death is expected, it is called '*kála-azár*', when unexpected 'fever'. The next point is what measures can be taken to prevent further mortality. These resolve themselves into two classes,—those the manager can be compelled to take, and those he might be induced to take of his own free will. If he is not beyond the reach of the Act, he soon will be, because if pressure is put on him, he will break up his lines and work entirely with *busti-wallahs*, or almost entirely. I believe he is beyond the reach of the Act.

Deputy Commissioner—

Though no special measures appear to have been taken, the health of the garden has improved. The vital statistical returns for the current year show only two deaths up to the end of April ; and if this improvement is continued, the garden will not be on the unhealthy list for the current year.

(3) CHUNSALI (*inspected on the 14th March 1892.*)

Civil Surgeon—

The garden has been inspected by the Sanitary Commissioner, by Dr. Giles, and by Dr. Campbell within a comparatively short period, and any suggestions they made are being acted on by the manager. It is quite clear that the mortality is due to some cause not confined to this garden, but common to nearly the entire district, recently aggravated here by an epidemic of influenza A latrine for the coolies seems to be the last hope we have of lowering the mortality from anæmia, and this hope rests upon a doctrine by no means yet established, that the anæmia of coolies is parasitic in its causation. Contrary to what has been my experience on other gardens, I have found that here so called jungly coolies, who eat everything, seem to suffer most. Although the manager and his assistant do not complain, I feel sure the garden, like Gauháti itself, is very malarious.

Deputy Commissioner—

The manager has been asked to have the latrines set at work without further delay. He now writes to me that some of the latrines have been completed, and the others will be finished in a few days. If the establishment of latrines does not succeed in reducing the mortality, it will be necessary to assemble a committee on this garden. I propose to watch the vital statistical returns for the first half of the year

(4) CHANDRAPUR (*inspected on the 3rd April 1892*).

Civil Surgeon—

The manager attributes the very high mortality on this garden to *kála-azár* and the bad management of a planter who held charge temporarily, and neglected his duties. *Kála-azár* has been so fatal that the manager has ceased to import new coolies, and can scarcely work his garden in consequence. The place is malarious, and the villagers round about seem to suffer as well as the coolies on the garden. *Kála-azár* has been known here only for two years. Labour is a difficulty; 352 acres are under tea, and only that the manager gets free labour he could not work the garden. Half the work is done by outsiders, the manager's own ryots working as garden coolies. The latter die from *kála-azár*, and it appears that the garden mortality has been swollen by persons coming for treatment and dying on the garden (old coolies who had taken to cultivation on their own account). The manager does not believe in Dr. Giles' worm, yet he has gone in for latrines and filters for his coolies. He thinks that bad food has had much to say to the sickness, and says that since he has taken the bázár into his own hands, there is a great improvement in the health of the coolies. The manager has not built his lines on the new site, because some coolies on the site selected suffered more than the coolies on the banks of the Kullung. I confess I can see nothing but a very malarious garden, and consequently can make no suggestions. The manager is also the owner of the garden, and he is doing all he can to protect his labour force.

Deputy Commissioner—

The Civil Surgeon's report on this garden comes to this, that the manager has now provided a good and abundant water-supply and good food-supply, that the lines are fairly well drained and clean, and that latrines have been established. These sanitary improvements should do much to diminish the death rate from the three main causes on this garden,—cholera, dysentery, and *kála-azár*. The health of the garden has improved, and before taking further action, I think it desirable to watch for some further period the result of the measures taken.

(5) BORDWAR (*inspected on the 15th April 1892*).

Civil Surgeon—

There seems to be a great change for the better on this garden. The mortality for the past four months has been low enough. One set of lines where *kála-azár* was prevalent was moved to a site approved of by Mr. Teunon, and latrines have been made. The water-supply is derived mostly from the river. I agree with Dr. Campbell that the river water is safer than the well-water. It was a mistake to recommend a Norton's tube here. If wells are to be made here, they must be either ring or *pucca* wells. The manager says that until *kála-azár* is far advanced, it in no respect differs from ordinary fever, and that no good has come of the periodical inspections recommended at last inspection. In all respects but water-supply the arrangements are good. There is a good water-supply to be had from the river, but it is muddy and requires filtration. If, as some people seem to think, *kála-azár* is due to a parasite incapable of breeding within the body but with ova widely scattered, the river water is the best supply, as it runs from the hills. I am quite satisfied there is a large malarial element here that will remain in spite of all sanitary improvement. Nagpuris seem to have suffered most.

Deputy Commissioner—

This garden was twice inspected in 1891,—once by the Civil Surgeon in July, and once by me in December. The suggestions made by the Civil Surgeon in July—(1) to clear the jungle near the lines, (2) to replace a few houses, (3) to close a condemned well and adopt Norton's tubes or other pump arrangements—had been carried out by December, though unfortunately the Norton's tubes did not prove successful The present inspection report shows that the suggestions made in December—(1) removal of one set of lines in which *kála-azár* was most prevalent to a new and suitable site, (2) latrines, (3) periodical musters of all coolies for native doctor's inspection—have been carried out. There was a considerable decrease in the mortality in the second half-year of 1891 compared with the first. The present report shows a still greater improvement since December. It is not unreasonable to conclude that this improvement must be due in part to the various sanitary improvements effected. In face of this and of the fact that at the inspection in December on mustering the coolies, 12 coolies requiring immediate treatment for *kála-azár* were found amongst those going to work for the day, I cannot agree in thinking that "no good has come of the periodical inspections recommended," and the manager will be asked not to discontinue them. Dr. Macnamara has, I think, misunderstood Dr. Campbell's opinion *re* wells *versus* river. Dr. Campbell writes that the river water was probably better than the water in one well "in the middle of the lines, and certain to suffer from contamination, as the surface drainage must run into it." This is the well that has since been closed. As the Norton's tubes have proved a failure, the adoption of ring or *pucca* wells, as now recommended, with some other form of pumping arrangements and otherwise properly protected, will be suggested. No other action appears to be now necessary.

(6) MANDAKATA (*inspected on the 19th March 1892*).

Civil Surgeon—

This garden has recently changed hands. There is at present little or no sickness but cholera, and the mortality but for the cholera would be low indeed. The Deputy Commissioner visited and inspected the garden on the 8th December, but I think it desirable that my report should cover a long period, and Dr. Dobson's report has been given me. I saw one case of cholera under treatment at the epidemic shed, which is near the Chandra lines. I believe this is the second outbreak that has taken place. Both had their origin among new arrivals; and this being so, no blame can be thrown on the garden management. Mr. Haviland accompanied me on my inspection, and it is clear that he is doing what can be done to prevent the cholera from spreading. The cholera outbreak, which occurred before the present one, appeared at Mandakata. I have looked into the death returns for the past year. There has been a case of murder, 3 deaths of children at birth or soon after it, 10 cases of cholera, and 14 deaths from fever and *kála-azár*. One of the latter was over sixty years old, and his death is shown in part as 'old age'. There were therefore 13 deaths only from causes connected with the place, and they are the real measure of its unhealthiness, giving a rate of about 4·5. The well at Mandakata is not bad, being a ring well. I think if it were covered in and a pump put into it, it would be a good arrangement. Water at Bornigiri is a difficulty, as rock is struck a couple of feet down in the site chosen. Here in the rains there is a good stream, now almost dry. The only way to stop the cholera is to keep it out by detaining all new arrivals at or outside the Chandra lines. Gardens unhealthy on account of cholera, as this is, would do well to get their coolies up in the height of the cold season, and so avoid crowding the steamers at this unhealthy season. There seems to be no *kála-azár* on this garden now.

Deputy Commissioner—

This garden was on the unhealthy list for 1891, having 29 deaths, giving a ratio of 12·3. Of these, 9 were from cholera, 2 from *kála-azár*, and 12 from fever. The present report by the Civil Surgeon shows a great improvement in the health of this garden since Dr. Dobson's visit in July. Apart from the outbreak of cholera among newly imported coolies immediately after arrival, there has been little sickness on the garden since the beginning of the year. The Civil Surgeon also reports that there appears to be no *kála-azár* on the garden, but unfortunately he did not, I understand, muster the coolies. I have asked him to do this without fail at all special inspections of unhealthy gardens hereafter. Looking to the improvement in the health of this garden, beyond requesting the manager to carry out the suggestions of the Civil Surgeon regarding the well at Mandakata and to improve the drainage of the lines (this was suggested at my inspection in December), I do not think further action necessary.

DARRANG.

(1) NAMGAON (*inspected on the 4th November 1891 and 27th January 1892*).

Civil Surgeon—

Sanitary arrangements as regards water-supply and state of the lines are good. In 1891 there were 33 deaths (Act 25 and non-Act 8), of which 10 were from *beri-beri*, 9 from dysentery, 3 from fever, and 11 from other diseases. Coolies mustered, and found fairly healthy. From January to December 1891 new coolies imported to the garden were Act 108, non-Act 65, of whom 7 died during the year (4 Act, 3 non-Act). Although the mortality is higher than 7 per cent., I could not find any marked defects calling for remarks. Here, as well as in most of the gardens, *beri-beri* and its complications play an important part in raising the mortality.

Deaths in			Act.	Non-Act.	Total
1887	...	...	28	2	30
1888	...	...	15	1	16
1889	...	...	9	10	19
1890	...	...	16	10	26
1891	...	...	25	8	33

Deputy Commissioner—

I have little to add to what Dr. Borah has said. The garden is unhealthy alone, so far as Act coolies are concerned, and is apparently suffering, as most gardens which import much are suffering, from a supply of poor coolies.

(2) NAHORANI (*inspected on the 3rd November 1891 and 27th January 1892*).

Civil Surgeon—

As this is a special inspection on account of its being on the black list, I note here the causes of mortality and as to sanitation. The regular inspection was done a month and a half ago. The total deaths during the year 1891 were 55 (among the Act 41 and non-Act 14). The causes of deaths were *beri-beri* and its complications (dysentery, diarrhœa, and dropsy) 34, cholera 5, and other diseases contributed the rest. On mustering the coolies I found a good number of anæmic coolies, who generally swell up the mortality if not detected and treated at the outset. The

lines are built on a good site with good drainage and *pucca* wells with pump and cisterns. The water by rough test was found of good quality. The high mortality, taking into consideration the sanitary arrangements, was due, I am inclined to think, to some batches of bad type of coolies with anæmia (*beri-beri*) in them. In order to guard against the spreading of *beri-beri*, I recommend that a set of houses, say four to six, be built near the hospital with a latrine (trench or dry earth system) attached. In these houses the *beri-beri* cases, when detected after timely inspection, must be segregated and kept under the immediate supervision of the doctor. By so doing, spreading of the disease is prevented, majority of the cases cured, and mortality minimised. The manager is willing to carry out any suggestion I make to reduce the death rate. I may here note that during the year 1891, 67 new Act and 28 non-Act coolies arrived in the garden, of whom 8 died from various causes.

Deputy Commissioner—

I was not able to visit this garden, but propose to do so shortly. I do not, as at present advised, think it necessary to hold a committee on this garden.

(3) KALAIN (*inspected on the 3rd November 1891 and 27th January 1892*).

Civil Surgeon—

The total deaths were 18 (Act 13 and non-Act 5), of which 9 were from *beri-beri*, 4 from fever, 2 from dysentery, and the rest from other causes. Here also half of the deaths was due to *beri-beri* and its complications. The percentage among Act coolies is high, due to the strength being small. The coolies were mustered, and I did not find so many anæmic cases (in proportion to strength) as in Nahorani. The deaths among the newly imported coolies in 1891 were 7 out of 99 Act and 35 non-Act coolies. Being a new garden, deaths for the past five years could not be given. The same recommendations are necessary as in the Nahorani tea estate. This is simply a case of bad batches of new coolies suffering on new extensions.

(4) DHEKIAJULI (*inspected on the 29th May 1892*).

Civil Surgeon—

I inspected the garden on 29th May 1892. The manager (Mr. Heddle) is absent on leave Mr. Saltonn is looking after the working of the garden during his absence.

No records except the daily attendance register were found. The manager stated that they were burnt during the late fire. I could not understand how one book was saved and not the others, which were also in daily use and kept in the same office.

During the year 1891 there were 22 deaths, of which 15 were Act. Causes of the deaths were mostly dysentery. The ratio of mortality among the Act coolies is 8·05 per cent. The prevailing diseases during my inspection are bowel complaints. No children's death up to date is noted in the register of the sick, in which I noticed 2 deaths (adults) from cholera and dysentery. The figures of last year quoted above are taken from the half-yearly returns. There are two blocks of lines—the old with mud walls (four in number) close to the tea house, and the new, on the north of the Government road, with *ekra* walls. They are fairly clean, but the grass jungle is growing so near to the houses that it is no wonder the lines, &c., are burnt periodically. The drainage system is very defective, in fact, no attempt has been made in this direction. There is a *holla* intervening between the old lines and the tea-house. The water of this *holla*, I have reason to believe, is used for all purposes. There are two wells (*kutcha*) with corrugated iron rings near the tea-house, and another *kutcha* well in the new lines. The water of these wells cannot be good, as there is every facility for surface and subsoil contamination. The new line people use not the well water but the Dhekiajuli stream, which is luckily close by. There is no hospital. The medicines are in the manager's bungalow. There is a qualified doctor Babu since 6th May 1892. Previous to this the sick were evidently treated by the manager and the muharrir, as the latter stated, and as was seen by the entry of the diseases in the sick register. It is no wonder that the mortality will be high. No special arrangement is made to take care of the weakly children, as I have noticed several children in an emaciated state during the mustering of the labour force.

As my recommendations in the previous inspections as well as of the other inspecting officers have not yet been carried out, it is necessary to have a committee on the garden.

Deputy Commissioner—

Dhekiajuli was in the black list for 1888 and 1889. I inspected the garden on the 16th November 1891. It was not unhealthy on both Act and non-Act population, but only on Act coolies. This means bad gangs of new coolies. I have visited the garden several times during the year. I append a copy of the note I added to my inspection report.

No infant deaths shown in the register in 18 months; manager says that not a single boy or girl has died all that time. Only five births this year—one still born, but not included among the deaths. Deaths due to dysentery and diarrhœa 24, cholera or choleraic diarrhœa 3, pneumonia only 2, anæmia only 1 (though several of the coolies I examined were anæmic); 2 deaths attributed to syphilis. A man and a woman committed suicide on the 20th June last. A police enquiry was held, and no particular cause was given in the report. The sub-inspector who enquired told me privately that he attributed these suicides to ill-treatment. I saw no signs of ill-treatment or overwork. I went carefully through several pages of the *hazira* book. Wages are fair, and in some cases exceptionally good. But the garden until lately has not been paying its way, and the labour supply is still inadequate, and would be grossly inadequate but that the manager can

get Kacharis. The coolies earned 5,844 full *haziras* out of a possible total of 6,973 in January and 5,922 out of a possible 7,549 in September, which happened to be a bad month for leaf on this garden. The number of days worked credited in the *hazira* book is unusually small, nor are there very many fractions. Area under tea 220 acres and outturn 1,070 maunds, less than one working coolie to the acre ; but Kacharis eke out the labour force. The coolies were mustered. Married women not put under contract without their husbands. Manager says he would do it if he had a coolie *basti* alongside. Women would work on garden, men in village. No unmarried women under contract. No coolies on new clearance. Manager does not complain of food-supply.

There is a practice here of giving weakly men women's *hazira*, that is, their wage is Rs. 4 a month and not Rs. 5. I believe this is a common practice. It is of course illegal, but the woman's task is lighter than a man's, and a weakly man really earns more under this system. This is one of the many points in which it is almost impossible for an inspector to regulate tasks in accordance with the Act. Here, as in the Darrang gardens, nothing under a half *hazira* is credited. I watched the day's leaf being weighed (by the manager in person). Women who brought something under two seers were credited with two seers ; but of course I was looking on. The garden is a very small one, and I am loth to order expensive changes which will trench on the wages fund. For instance, in the matter of the hospital, some sort of hospital must be supplied, but the manager is not so much to blame as the manager of Borjuli for instance, a huge estate with 2,000 coolies and yielding handsome profits.

* * * *

A committee will be held on the garden as soon as the manager returns. I had determined on this before Dr. Borah's visit. The garden is a private garden, with a poor labour force. It has been frequently visited. I have been there several times myself during the year.

(5) Rowta (*inspected on the 8th December 1891*).

Civil Surgeon—

It was inspected by the Deputy Commissioner on the 24th November 1891. The details of the causes of deaths are as follows :

19 cholera.		3 dropsy.
5 dysentery.		1 anæmia.
	7 other causes.	

The total labour force being 281, the percentage of mortality rose to 12·55. This high mortality was due to the outbreak of cholera. The old lines will be abandoned as soon as the new lines are completed and *pucca* wells sunk. A better hospital may be in or near the new lines under the charge of a duly qualified man.

Deputy Commissioner—

This garden was inspected by me on the 24th November and by the Civil Surgeon on the 8th December 1891. I visited this garden four or five times in the course of the year, once in the company of the Commissioner, Mr. Waco. Of the 35 deaths, 19 were due to cholera. This garden has been unlucky in getting very bad batches of coolies from the agents. I append a copy of a letter which I wrote to the manager,—a letter which has also formed the subject of a special report to Government.

Copy of Deputy Commissioner's letter to the Manager.

In inspecting your garden to-day I found that a gang of 62 coolies, who were sent to you by your agent, has undergone the following startling experiences :—13 died, 26 ran away (with the probable result that many of them died of starvation in the jungle). Of 6 I cancelled the agreements to-day on account of their physical unfitness to labour. One was in a moribund state, and I thought it useless to cancel the poor wretch's agreement. This leaves you with a balance, out of the whole batch, of 16. Even these 16 are a poor lot, and it was not without considerable hesitation that I refrained from cancelling their agreements also. I cannot lay the dreadful result to your charge. Rowta has been hitherto a healthy garden, and I find that you have taken steps to give food and subsistence allowance to those of the gang who had been unable to earn wages. But it is clear that the gang has proved a very poor investment for the estate. It would obviously have been better had they not been imported at all. It is clear that coolies of a feeble and ill-nourished type should not be sent to a garden like yours, and I write to warn you that if your agents send you any more such decrepit specimens of humanity, I must summon a committee and take steps to prevent any new Act coolies being sent to your garden at all. I notice that in these people's agreements they are all described as Sonthalis. They are nothing of the kind. They are low caste Hindus from the North-Western Provinces and the western districts of Behar. You did rightly if you asked your agents to supply you with good Sonthalis and Orias for a garden in which considerable extensions (looking to the total labour force at your disposal) are being made. But I do not know how to fitly describe the conduct of the contractors who foisted off these 62 wretched North-Westers on Messrs. King & Co. as Sonthali coolies I have no doubt that the contractors' charges were drawn up on the scale usually charged for good Sonthalis. I would beg you and your agents (to whom I am sending a copy of this letter) to consider whether legal steps cannot be taken to punish what seems *primâ facie* to approach perilously near the borders of fraud. It is only necessary to look at these coolies—to hear them speak—to be assured that their homes lie very far indeed from Dumka, whence, according to their contracts, they should have come. When such practices result, as they must often result, in such ghastly losses as have occurred in this gang, the matter becomes a serious one

for you and for your employer. It brings a hitherto healthy garden on to my black list; it exposes you to the probability of having your supply of labour entirely stopped by a committee. This unfortunate gang must already have cost the concern an enormous sum of money, which can never be recouped. It is futile for the contractors to say that the gang contained the best coolies then available. Why were they falsely described as Sonthalis, and why were you not given the option of refusing to take them on the ground that a poor class of North-West coolies were not suited to the peculiar circumstances of your garden? It is not right that you should acquiesce in such a state of things. There must surely be a legal remedy when coolies, supplied and paid for as Sonthalis, turn out to be not only North-Westers, but North-Westers of a peculiarly debilitated and feeble type, utterly unfitted for tea garden labour. In conclusion, I warn you once more that if the supplies of labour you are now expecting are not of a type better fitted for tea garden work, I must summon a committee to consider whether your garden is suited for the employment of Act labourers at all. I do not blame you personally. I am convinced that you have done your best to save the lives of the feeble creatures who were sent up to you to ply the hoe. But I cannot allow such a dreadful loss by deaths and desertion to pass unnoticed.

(6) DIPLONGA (*inspected on the 27th March 1892*).

Civil Surgeon—

In 1891 there were 31 deaths, of which 21 were among Act and 10 among non-Act coolies. Of the Act coolies, cholera caused 7 deaths, dysentery 11 (this is the sequelæ of *beri-beri*), diarrhœa 2, fever 2, childbirth 2, burns 1, total 21. The percentage among Act coolies is 8·31, and if 7 cholera cases are excluded, the percentage will be 5·8; consequently the garden has come under the black list on account of cholera, which occurred among the newly-imported coolies. One of the wells is out of order, and is not used. The manager will be requested to have it thoroughly repaired, as the other well, which is also close by, is not convenient to the far end of the coolie lines. The *pucca* hospital building in which the manager lives now will be used as a hospital as soon as the manager's bungalow is ready. All the sanitary arrangements are good as regards lines, drainage, and water-supply, which latter will be improved by repairing the other well, as suggested.

(7) MIJIKAJAN (*inspected on the 30th March 1892*).

Civil Surgeon—

In 1891 there were 57 deaths, of which 42 were among Act and 15 among non-Act coolies. The high mortality was due to cholera, which carried away 14 Act and 7 non-Act coolies. Besides this, one death from influenza occurred among the Act coolies; hence 15 deaths (Act) raised the percentage of mortality among the Act coolies. The manager during and subsequent to the outbreak of cholera was trying his best to put a stop to it. A compounder in immediate charge of a garden having over 900 souls is not in my opinion competent to hold such a responsible post. A duly qualified man for the garden is urgently needed.

Deputy Commissioner—

This garden was inspected by me and Dr. Borah on the 29th October last. The remarks were as follows:

The manager wrote to me to say that cholera had been lingering on his garden since August; that he had done his best to cope with the disease, but in vain; and that he would be glad of advice as to the best means of reducing the mortality. I wrote in reply that Dr. Borah and I would visit the garden at once, and asked him to muster the coolies and get Dr. Ainsworth to meet us. Dr. Ainsworth was there, but the coolies were out at their work. It happened unfortunately that the Calcutta agent of the garden was inspecting on that very day. This may possibly account for the absence of the coolies. We carefully inspected the lines and hospital with Dr. Ainsworth, and Dr. Borah went into the history of the cholera cases with Dr. Ainsworth. He found that cholera had occurred in all the lines; that the water-supply, as noticed above, was liable to be contaminated; that a more resolute attempt at segregation should be made; and that the quarter in which cholera had occurred should be more effectually disinfected. I am writing to the manager in accordance with the Civil Surgeon's advice that all quarters in which cholera has occurred should be left unoccupied for at least a fortnight.

If cholera occurs in the old condemned lines, such lines should be destroyed and the materials burned. In the new *pucca* lines the walls and floor should be scraped and fresh plastered and mudded, and sulphur should be burned in the rooms after closing the ventilation in the roof. Of the total number of deaths among Act coolies, 10 were due to cholera; and 10 deaths among non-Act coolies were due to the same cause, that is, 20 deaths out of 66 were due to cholera. In the hospital, when we visited it, two cases were people recovering from cholera. The majority of the other deaths were due to dysentery, diarrhœa, and some cases of pneumonia, which last disease had done much damage when Dr. Borah visited it last year. The garden has now come on our black list, and Dr. Borah will have to visit it again. He will be instructed to insist upon all the coolies being mustered. In the meantime our *impromptu* visit, due to Mr. Swinley's letter, will result in Mr. Swinley's being told what he had better do in the way of improving the sanitary state of the garden. I will send a copy of the instructions which I have asked Dr. Borah to draw up to the agents. I think the manager is anxious to do all that he can without incurring exorbitant expenses. His action in writing to me perhaps shows this. Dr. Borah will tell him, having consulted Dr. Ainsworth, exactly what should be done, and I will see that the instructions are carried out. I will call Mr. Swinley's attention to the fact that he can under the Act penally enforce sanitary orders which have been made by an inspector.

(8) DHENDAI (*inspected on the 30th January 1892*).

Civil Surgeon—

The coolies were mustered and inspected. Lines are on low plinths with defective drainage, the hospital house is not a comfortable place. The manager is going to correct the defects pointed out. The deaths during the year 1891 were 30 (Act 18 and non-Act 12), of which 10 were from dysentery, 3 from dropsy, 3 from fever, and 14 from other diseases. I am inclined to think that the majority of the dysentery cases were nothing but complications of *beri-beri*, which is the fountain-head of many diseases and of high mortality. Of 12 non-Act deaths recorded, 9 were the deaths of children. It is a new garden, and will require careful watching. But I do not think its present state calls for the holding of a committee.

Deputy Commissioner—

This garden is returned as unhealthy for the first time. I visited it on the 29th May 1891. It was unhealthy among non-Act coolies, chiefly the children; of the 12 non-Act deaths, 9 were among children.

(9) BARPUKHURI (*inspected on the 29th March 1892*).

Civil Surgeon—

The deaths in 1891 are detailed below:

	Act.	Non-Act.	
Cholera	2	1	
Influenza	2	2	
Anæmia and debility	4	9	These more or less results of *beri-beri*.
Dysentery	8	18	
Dropsy	...	6	
Other causes	...	7	
	16	43	

The high mortality among non-Act coolies was due to a large death rate among children (27 in number, of which 15 were from dysentery, 5 from dropsy, and 3 from anæmia). The manager states that last year's batches brought with them sickly children; some came in with dysentery and dropsy. If this can be relied on, then the dysentery, dropsy, &c., are nothing but the sequelæ of *beri-beri*. In the sick and death registers the diseases are not correctly entered, and it is no wonder, as the present doctor Babu, being a mere compounder, cannot diagnose the diseases. A duly qualified man is also required for this garden. The manager tells me that he has written for one, who is expected in April. The other arrangements, such as lines and water-supply, are good.

Deputy Commissioner—

This will be seen to, and the obtaining of the services of a duly competent hospital assistant will be insisted upon.

(10) BANGLAGOR (*inspected on the 21st October 1891*).

Civil Surgeon—

Coolies mustered, and found generally healthy.

Death rate in—

	Act	Non-Act.
1887	...	1
1888	1	2
1889	4	6
1890	1	3
1891	3	15

From the above figures it will be observed that the previous years were healthy, but the year 1891 shows high mortality owing to an outbreak of cholera among the newly imported coolies. Out of the 18 deaths 11 were from cholera; and if these be excluded, the garden mortality will be reduced to little over 3 per cent. Hence I do not see any necessity for recommending a committee. My remarks on Kowpati apply with somewhat greater force to this garden. Of 16 deaths, 10 were due to cholera. This garden is very favourably situated, except that it is peculiarly liable to cholera epidemics. It is close to the steamer ghat, at which all the Mangaldai coolies land. In other respects it is healthy. I visited the garden four or five times during the year, but did not think it necessary to hold a formal inspection. The garden is one of those which might easily be worked with free labour.

(11) GELLADONG (*date of inspection not given*).

Civil Surgeon—

The year 1891 shows high mortality owing to an outbreak of cholera. Out of the 30 deaths, 22 were from cholera; and if this be excluded, the garden mortality would be reduced to little over 3 per cent. Hence I do not see any necessity for recommending a committee.

Deputy Commissioner—

This garden was unhealthy on both Act and non-Act population.

	Strength.		Deaths		Percentage of deaths.
	1st half	2nd half.	1st half	2nd half	
Act	13	13	2	...	15·38
Non-Act ...	261	256	24	4	10·75

The deaths among Act coolies were 2 and non-Act 28, total 30; of these 22 were due to cholera. This garden is in the black list for the first time on account of outbreak of cholera. It is a small garden managed by a native gentleman, and is usually very healthy. I visited the garden twice during the year, but only recorded an inspection note on one occasion.

(12) TARAJULI (*inspected on the 21st March 1891 and on the 25th February 1892*).

Civil Surgeon—

The coolies were mustered and found generally healthy. Only 30 cases of *anchylostomiasis* were noticed among the labour force. In 1891 deaths were 24 among Act and 29 among non-Act coolies, details being—

	Act.	Non-Act
Cholera	12	5
Dysentery	6	4
Fever	...	6
Dropsy	3	...
Other diseases	3	14

The high death rate was due to cholera. Deputy Surgeon General Costello and Mr. Anderson, the Deputy Commissioner, who accompanied me to see this black list garden, are of opinion that the lines are (old) not clean, drainage defective, and that the Norton's tubes have been sunk in the lines in objectionable places. Some of the houses are overcrowded. The manager is requested to send the tube water to the Chemical Examiner for examination. The water looks very clear, and tastes ferruginous. This garden has been importing labour somewhat largely, and, like other such gardens, has had bad batches, and these have brought up cholera with them.

(13) SADHARUGHOP (*inspected on the 28th March 1892*).

Civil Surgeon—

The largest number died from *beri-beri* and its sequelæ (in the latter can be classified and included diarrhœa 2, dysentery 1), which raised the ratio of mortality to over 7 per cent.; and it is no wonder, considering that 50 per cent. of *beri-beri* among the coolies mustered was found in my last year's inspection. I must say that I did not find any defects in the sanitary arrangements as regards lines, drains, water-supply, and hospital. The manager has started latrines for the coolies behind the lines on a trench system.

* * * * * *

I have inspected this garden for high mortality three times. I think it would be better to have a committee if the garden again shows high mortality.

N.B.—From the registers I noticed that the coolies imported during the first half-year of 1891 were of inferior physique. Out of 35 deaths, 16 died from this lot. If cheap importation is resorted to by the garden agency, it would be better to have a committee to decide whether it would not be better to put a stop to such importation.

Deputy Commissioner—

This garden was unhealthy in 1884, 1888, 1890, and again in 1891. It lies on a wide open plain near Bishnath ghat, and there is nothing in its aspect or position to suggest the likelihood of its being unhealthy. It has been unhealthy both for new and old coolies. The manager himself has ill-health. There seems to be something wrong with the water-supply. I am about to hold a special enquiry into the state of this garden.

With reference to Dr. Borah's present report, the Deputy Commissioner remarks:

This is the usual cause of heavy mortality in this district. We are importing rather largely at present, and recent *chalans* of coolies, though usually described as Purulia coolies of good *jat*, have been deplorably bad, anæmic, and unfitted to support the conditions of tea garden life.

(14) PANBARI (*date of inspection not given*)

Civil Surgeon—

The total labour force is 153 Act and 111 non-Act; total deaths 10 Act and 14 non-Act, percentages being 6·36 and 11·87 respectively. Of the total deaths, 15 were due to cholera (11 children died—from cholera 8, fever 2, and other causes 1). The high ratio of mortality among the non-Act coolies was due to cholera, which was prevalent in the Mangaldai subdivision No prominent sanitary defects are noticed. There is no hospital, but the serious cases are sent to Gronland or Singrimari for treatment.

Deputy Commissioner—

This garden was unhealthy during the last two years (1890 and 1891), and was on the black list for 1881, 1882, 1884, and 1885. Out of the 24 deaths, 15 were due to cholera, which was prevalent in Mangaldai It was inspected by the Civil Surgeon. The garden is a small one, and a very few deaths suffice to put it on the black list.

(15) KOWPATI (*inspected on the 9th December 1891*).

Civil Surgeon—

Coolies mustered and found healthy. The death rate for the last five years was—

	Act	Non-Act
1891	7	29
1890	6	14
1889	1	10
1888	5	12
1887	4	7
	23	72

The village of Garua higher up Dhansiri had cholera. A dead body was stuck above the garden. The men using the water got cholera; the first case occurred on the 29th May 1891, and the last case on the 15th July 1891. Out of 49 cases, 21 died from cholera; hence the high mortality.

I did not formally inspect this garden, but I visited it more than once. It is, under normal circumstances, very healthy, and hardly calls for inspection at all. It is in the midst of *basti* cultivation on the banks of a good river and on the Trunk road. It is worked largely by local labour.

NOWGONG.

Civil Surgeon—

(1) NELLI (*inspected on the 10th March 1892*).

The garden was last inspected by Mr Brodrick on the 2nd November 1891.
The manager (Mr. F. Walker) was present.

1. *Population.*—The strength on the day of inspection was—

	Act I	Non-Act.
Men	48	29
Women	57	11
Children	...	17
Total	105	57
Absent recruiting	4	4
Grand total	170	

2. *Lines and drainage.*—There are two sets of lines—the old lines and the new lines, occupied by Ganjamese. The old lines, on the bank of a small stream, are of moderate elevation and fairly drained. They do not appear to be subject to inundation. The huts are semidetached for two families; roofs of thatch, some of which are rather low; the walls of reed mud plastered; they are in fair repair. Some repairs going on now. The new lines are sufficiently elevated. They require to be drained, and the jungle growth behind cleared away. It is found that, generally speaking, coolies cannot be prevented from using the water of a stream where the lines are placed objectionably close to it.

3. *Latrines.*—There is a recent attempt to institute latrine arrangements; the one provided is not sufficient. Separate latrines for men and for women and children are required, also a sweeper to work them No latrines in the new lines; two latrines are required here also. Hitherto the people frequented the jungle around and the spaces between the tea bushes.

4. *Water-supply.*—There are two masonry wells of about 3½ feet diameter in the old lines, and a *kutcha* well in the new lines. These are under sheds. There are no pumps, cisterns, or tanks. Each coolie draws up water for himself in his own vessel. There was an iron tank near one of the wells, but this has been removed, as the coolies did not use it. The two masonry wells should be cleaned out, and repaired one after the other. A masonry well should at once be sunk for the use of the coolies on the new lines. For a time a water-carrier was allowed to supply water from the wells to the people at work at a distance. The manager states that the scheme fell through on account of the coolies not appreciating it. A supply of good drinking water for the coolies at work is so obviously important that the manager has been requested to have this supplied. It is successfully carried out in many gardens.

5. *Hotel and dieting.*—A sort of hotel system was in use for a time, but this has ceased. The hospital is at present empty, as the sick are treated in their huts. Those requiring it receive a sick diet of cooked food, or else subsistence allowance. The advantages of the hotel system of feeding, when generously carried out, are so well known, especially for those coolies who are more or less anæmic or debilitated, that I recommend the hotel be again started. The results are well worth the money spent.

6. *Food-supplies.*—Food-supplies are obtainable at the weekly market held close to the garden on Mondays. It appears to be well attended. Rice was selling at 6 annas per measure of 5 seers. This is a higher price than usual. There are no shops on the garden, but there are several outside, where ordinary food-grains are sold. There is no complaint regarding these.

7. *Medical arrangements.*—The medical man is Dwarka Nath Das Gupta He has certificates of having served on other gardens. He says he studied for a year at the Dacca Medical School. He has not passed I examined him, and found him not qualified except as a compounder, and he does not comply with the requirements of rule 122 of the rules under the Act He was absent for about nine months in 1891, during which time other inefficient men, it appears, were working. The requirements of the Act should be complied with by a qualified hospital assistant being engaged at once. The medicines are sufficient and good. The poisons are separately stored. *Thymol* has been used, but there is no separate register kept.

8. *Personnel.*—The whole of the coolies and their children were inspected in the afternoon in their respective lines. In the old lines 4 men, 6 women, and 1 boy were noted as anæmic, and amongst the Ganjamese, 4 men, 1 woman, and 1 boy were noted as anæmic These were all in the first stage, and were pointed out to the manager and the medical man for treatment by *thymol*, and the hotel system, &c., and for careful medical supervision during the season. Excepting those anæmic, the people appear fairly healthy, but there are few good jungly coolies amongst them. They are mostly contractors' coolies. There were 7 Act-I coolies on the sick list, *viz.*, 2 dysentery, 1 bronchitis, 1 diarrhœa, 2 fever, 1 scalin.

9. *Mortality.*—The death rate for 1891 was Act 12 65, non-Act 2·41 per cent. The deaths amongst the Act-I labourers comprised 5 dysentery, 1 diarrhœa, 3 anæmia, 1 dropsy, 2 fever, 1 pneumonia, and 1 hysteria, total 14, *i.e.*, 10 men, 4 women. Since the close of the year there have been 3 deaths, *viz.*, 2 bronchitis, 1 anæmia, and 1 abscess. There were 2 deaths amongst the Ganjamese. One man deserted twice, and was imprisoned; he was ill when released from jail; he died in the station dispensary. Manager attributes the mortality to the inferior class of coolies imported. There were 7 desertions in 1891.

10. *Recommendations*—

(1) The two masonry wells to be cleaned out and repaired.
(2) A masonry well to be sunk at the new lines.
(3) The people out at work to be supplied with well water.
(4) The hotel system to be again brought into use.
(5) A qualified hospital assistant to be appointed for the medical care of the coolies.
(6) Sufficient latrines to be provided for men and for women and children in both sets of lines, and a sweeper appointed to look after them properly.
(7) The new lines to be drained and the jungle cut away.

I consider these as most important, and that they should be carried out without delay.

Deputy Commissioner—

The mean strength of Act coolies for the year was 125; the number of deaths 16, making a death rate of 12·65 per cent. The deaths were due to—dysentery 5, fever 2, dropsy 1, anæmia 3, other causes 5. In 1889 the rate was *nil*; in 1890 6·5. There were no deaths in 1889. This garden was medically inspected by the Civil Medical Officer on the 10th March 1892, and he reports that the water-supply is not as good as might have been expected, and that the native doctor is not a qualified man. The class of coolies, too, is not good, being mostly contractors' coolies. The attention of the manager has been drawn to the various points noted by the Civil Medical Officer, and the garden will be visited again shortly to see what has been done towards carrying them out. This garden was inspected by Mr. Brodrick, Assistant Inspector of Labourers, on 2nd November 1891.

(2) LENGTENG (*inspected on the 24th March 1892*).

Civil Surgeon—

1. *Population.*—The strength on the day of inspection was—

	Men.	Women	Children.	Total
Act I	199	202	...	401
Non-Act	159	147	378	684
Grand total	...	...	...	1,085

2. *Mortality.*—The mortality rate during the year 1891 was—

Act-I coolies	8·47 per cent
Non-Act "	5·09 "

The non-Act people were healthy. The death causes amongst Act-I coolies were—*anchylostomiasis* 5, cholera 3, influenza and pneumonia 7, dysentery 2, abortion and childbirth 2, old age 2, Bright's disease 1, heart disease 1, heat apoplexy 1, abscess 1, syphilis 1, total 26. There was an epidemic of influenza of a severe type causing much sickness, and 7 deaths were due to this cause. Two men went in to Nowgong to obtain recruiter's licenses; these died from cholera immediately after their return from the station. Excluding these (12) exceptional causes, the death rate was not high (3·4 per cent. only).

3. *Sick list.*—The present sick list numbers 54 persons, the larger proportion of whom are suffering from influenza. This disease has been prevalent on most of the tea gardens in this district, and has been of a severe type. Many cases have also occurred in the Assamese villages. The Act coolies who were inspected appear otherwise healthy.

4. *Medical arrangements.*—The native medical man is Sheikh Nasir Uddin. The European Medical Superintendent visits twice a week. There is an ample supply of medicines, which are replenished as required from the headquarters garden *Thymol* has been largely used, and with benefit, in conjunction with the hotel system, which has been long in force. Vaccination has been done. The medical arrangements are satisfactory.

5. *Lines.*—The lines are good. Elevation, drainage, &c., all satisfactory.

6. *Latrines.*—During the past year a number of latrine trenches surrounded by screens have been made. These are placed at convenient distances from the lines, and have been fairly successful; they are in good order, and dry earth has been thrown in daily.

7. *Water-supply.*—Is from three good wells properly fitted with iron tanks and taps, all under a shed. The tanks are filled by means of a large tin drawn up by two men. Water from the wells is regularly supplied to the coolies who are out at work. These arrangements are satisfactory.

8. *Food-supplies.*—Rice is largely imported and issued to the coolies There are three shops in the garden, where ordinary supplies are obtainable. The coolies frequent the Salona *hát*, where ample supplies of all kinds are obtainable There was no complaint regarding food-supplies.

The medical and sanitary arrangements are good.

Deputy Commissioner—

This garden appeared on the unhealthy list in 1890, and again appears on the list for 1891. This garden was inspected by Mr. Brodrick on 12th July 1891, and again medically by Civil Medical Officer on 24th March 1892. The deaths during 1891 were heavy, numbering 26 on a mean population of 315 Act-I labourers = 8·47. The number have been increased considerably, as on the day of Dr. McNaught's inspection there were 401 Act-I adults present. Out of the 26 deaths we may, I think, deduct the following, for which the garden can hardly be held responsible:—Cholera 3, abortion and childbirth 2, old age 2, Bright's disease 1, heart disease 1, heat apoplexy 1, abscess 1, syphilis 1, total 12. This leaves 14 only which would reduce the rate to 3·8, and remove the garden from the list. The Civil Medical Officer reports that all the arrangements on this garden are good; latrines are in use, and are kept clean. The death rate for last three years has been for Act labourers—

1889	2·37
1890	12 7
1891	8·47

For non-Act coolies—

1889	3·42
1890	2 58
1891	5·09

(3) UDMARI (*inspected on the 26th March 1892*).

Civil Surgeon—

1. *Population.*—The strength on the day of inspection was—

	Men	Women.	Children	Total
Act-I coolies	57	62	...	119
Non-Act "	40	38	176	254
Total	...	...	.....	373

2. *Mortality.*—The mortality rate during the year 1891 was 8·78 per cent. amongst Act-I coolies. The non-Act were healthy. The death causes were cholera 3, diarrhœa 4, dropsy 1, anæmia 1, ulcer 1, total 10. Excluding cholera, the death rate would not be very high, 5·8. The dropsy and the anæmia were probably *anchylostomiasis*.

3. *Medical arrangements.*—The resident medical man is hospital assistant Tarak Chandra Pal. There is a good supply of medicines, and another supply is expected to arrive soon. *Thymol* has been used, but I think not so freely as it should have been. At the inspection of the Act coolies, two men and seven women were noted as anæmic, and amongst the sick three women were noted as anæmic, and were pointed out for treatment by *thymol* and for careful feeding on the hotel system. The hospital assistant, had he been attentive, would have noticed these people, and have had them placed under proper treatment. The hotel system was in force for a time, it appears, but gradually ceased. The great necessity there is for such a system of feeding weakly or anæmic coolies has been pointed out to the manager, who promises to start it at once; also that the hospital assistant should now and then inspect the coolies for the early detection of anæmia and appropriate treatment, and to regularly (twice a month) inspect the children in the lines to see that they were properly cared for. Vaccination has been attended to.

4. *Lines.*—The lines have been under reconstruction, and are much improved in drainage and buildings.

5. *Latrines.*—There are no latrines. The coolies frequent the jungle and spaces amongst the tea bushes. The manager promises to start latrines as soon as possible.

6. *Water-supply.*—One masonry well and two *kutcha* wells form the present water-supply, and two new wells are in course of being prepared. If these are made *pucca*, they will provide an ample supply. The provision of iron tanks and taps, the whole to be placed under a roof, has been recommended to the manager. For bathing and washing of clothes a *bund* is being raised to form a tank. Water is carried to the coolies at work at a distance.

7. *Food-supplies.*—There is a shop on the garden; the supplies are good. There has been no complaint regarding them. The coolies frequent the Samaguri *hát*, about 3¼ miles distant.

Deputy Commissioner—

Udmari's first appearance. Death rate amongst Act labourers in—

1889	4·63
1890	3·9
1891	8·96

Amongst non-Act coolies—

1889	1·47
1890	1·85
1891	5·75

In 1891 the mean strength of Act-I labourers was 111, of whom 10 died. The deaths were as follows:—Cholera 3, diarrhœa 4, dropsy 1, anæmia 1, ulcer 1. Of those perhaps the three first and the last should not count against the general healthiness of the garden. Deducting those, the rate would be 5·4 per cent. This garden was not inspected during 1891. Dr. McNaught inspected the garden medically on the 26th March 1892. His report is attached. He remarks especially on the water-supply and the re-establishment of the hotel system. His remarks have been forwarded to the manager for information and guidance, and a visit will be paid during the rains to see that the suggestions have been attended to.

(4) ANJUKPANI (*inspected on the 28th February 1892*).

Civil Surgeon—

This is an out-garden of the Salona Tea Company under Mr. J. Henderson's management. The strength on the day of inspection was—

	Men.	Women.	Children.	Total.
Act	9	12	...	21
Non-Act	60	55	63	178
Grand total	69	67	63	199

The garden was reported to have had a mortality of 7·77 amongst the non-Act population. The Act labourers were healthy. During 1891 there was one death amongst Act labourers—a woman, cause miscarriage. Amongst the non-Act population death causes were—

	1 *anchylostomiasis.*
	5 pneumonia
	1 diabetes.
	1 diphtheria.
	1 dysentery.
	3 fever.
	1 old age.
	1 premature birth.
Total ...	14

Four of these were amongst infants. There had been an outbreak of influenza, which caused 5 deaths from pneumonia, occurring during its course.

On the day of inspection there were 4 sick, *viz.*, 1 phthisis, 1 worms, 2 influenza. The latter disease has been very extensively prevalent in the tea gardens during the present cold season, and has been of a more severe type.

I found two persons only who were slightly anæmic, and brought them to the notice of the manager for the *thymol* treatment.

The population seems quite healthy, generally speaking. The coolies are of good physique; they appear well to do, and are contented.

Rice is supplied by the manager at Rs. 3 per maund. There is a shop on the garden, where ordinary supplies of good quality are procurable. The food-supplies are ample.

There is a large proportion of children, and they all appeared healthy. Vaccination has been successfully done during this cold season.

There are plenty of cows, goats, and fowls belonging to the coolies.

The site of the lines is good, well elevated, sufficiently drained, cleaned, and is not shut in with jungle.

The houses are very good, are semi-detached, sufficiently raised, kept in proper repair, are not overcrowded, and there are either *charpoys* or *changs*.

The water-supply is from a Norton's tube-well; it is conveniently situated at one end of the lines, is fenced in, and sufficiently drained; it never fails; gives an ample supply of good water; is in constant use, and is much appreciated by the coolies.

The medical arragements are under the supervision of a European medical officer. The native doctor visits daily where there is any sickness, and medicines are sent daily from the headquarters as required. There is also a supply of simple medicines kept ready for emergencies.

I have no fault to find with the care taken of the people or with the sanitary arrangements.

The garden has not been on the unhealthy list for years; and had it not been for the unavoidable mortality due to the outbreak of influenza, it would not have appeared on it for 1891.

Deputy Commissioner—

This garden had a mean strength of 180 with 14 deaths=7·7 per cent.

It was inspected by Mr. Brodrick on 14th July 1891 and again by Dr. McNaught on 28th February 1892.

The 14 deaths include those of 4 infants, and 5 died from influenza and its sequelæ. The Civil Medical Officer reports that he has no fault to find with the care taken of the people or with the sanitary arrangements.

(5) SIGONI (*inspected on the 22nd March 1892.*)

Civil Surgeon—

1. *Population.*—The strength on the day of inspection was—

	Men.	Women	Children	Total.
Act I	65	66	...	131
Non-Act	68	45	158	271
Grand total	133	111	158	402

2. *Mortality.*—The mortality rate during 1891 was—

Non-Act people ... ... 7·69 per cent.

The Act I were healthy.

The death causes were amongst adults—1 dysentery, 1 diarrhœa, 1 cholera, 1 old age, 1 syphilis; amongst children—5 convulsions, 4 dysentery, 1 fever, 1 bronchitis, 1 erysipelas, and 1 *anchylostomiasis, i.e.*, 5 adults and 13 children, total 18 deaths.

The list discloses nothing specially, and it could not be ascertained that any particular or avoidable causes were at work to result in the somewhat higher mortality amongst children. The whole of the non-Act people and the whole of the children of those under the Act were inspected. They were generally healthy, and appeared cared for. The mothers are excused work when their children are ill, so that they can look after them. Vaccination has been successfully done.

3. *Medical arrangements.*—There is a resident hospital assistant who has a diploma, and he appears to be careful and attentive. There is a good supply of medicine. The *thymol* treatment has been fully used.

4. *Food-supply.*—There is a shop on the garden, and the people frequent the Jaklabandha *hát*, which is about 2½ miles distant. Supplies have been ample, and there are no complaints about them.

5. *Water-supply.*—There is a good water-supply from three wells, two of which have tanks and taps fitted ; all have sheds over them. Well water is supplied to those out at work.

6. *Drainage.*—This is naturally good ; some improvements required. This the manager promises to do.

7. *Latrines.*—There are no latrines. The necessity for these has been pointed out to manager.

8. *Lines.*—The site, elevations, and general arrangement of the lines are good. The houses are in good order and repair.

There appears to be nothing else requiring special remarks.

Deputy Commissioner—

Mean strength of non-Act population was 232, deaths 18, death rate 7·7. This garden was inspected on 9th October 1891 by Dr. McNaught and again by the same officer on 22nd March 1891. This garden appeared on the list for 1889 on its Act coolies Of the 18 deaths, only 5 were those of adults, the balance being those of children ; 5 of the latter were from convulsions ; 3 of the former should not count against the general healthiness of the garden, being caused by—cholera 1, old age 1, and syphilis 1. The death rate reduced would amount to 4·3 only. The Inspector finds no fault with the garden death rate for—

	For Act coolies.
1889	17·9
1890	5·6
1891	6·25
	For non-Act coolies.
1889	6·91
1890	1·37
1891	7·7

(6) KOLIABAR (*inspected on the 8th October 1891*).

Civil Surgeon—

1. *Inspection Report*—The last inspection report was not available in the office for reference. The manager is Mr H. L. Smith, who accompanied me. A muharrir resides at the garden. This is an out-garden of the Koliabar tea estate, of which the headquarters are at Silghát, distant about 3 miles.

2. *Labour force.*—The whole of the adults and children were paraded in the lines, and were carefully examined. They were found to be healthy, robust, and of good physique, and the children strong, and, judging by appearance, properly looked after by their parents. There are no special arrangements for looking after the children, as this is efficiently done by the parents. Orders are in force that in case any of the little ones become sick, the matter is to be reported by the line chaukidár to the muharrir, so that medicines may be obtained at once from Silghat. Mothers have leave without pay given them to look after their sick children ; orphans are given in charge of some women, and food is supplied by the garden in such cases.

3. *Vaccination.*—Some of the children require to be vaccinated in the cold season. The manager informs me that some of the people objected to have vaccination done last season. As instructed, an effort is to be made to have all requiring it vaccinated if possible, otherwise the names of objectors are to be submitted to the Deputy Commissioner's office. A supply of lymph has just been given to the hospital assistant.

4. *Anæmia.*—At the inspection the following anæmia cases were picked out for treatment by *thymol* :—1 man, 2 women (one slightly affected), and 1 boy, also a man who is sick with dysentery and anæmia. At present the sickness is slight and cases few—anæmia, fever, coughs, and ulcers. Cases of serious illness are sent for treatment to the headquarters garden, where there is a hospital and the hotel system of feeding. Slight cases are treated in the lines at Sonari. There are no cases known as *kála-azár* within the lines or villages in this quarter.

5. *Medical Officer.*—Hospital assistant Khairat Ali is the medical officer. He resides at Silghát. He fulfils the medical requirements of the Act. There is a large and varied supply of medicines at the headquarters, 3 miles distant, and a few simple medicines are kept at Sonari. During the cholera epidemic the hospital assistant visited the lines every day, sometimes twice a day. Effort was made to obtain a compounder to assist, but such cannot be readily obtained on an emergency.

6. *Statement of deaths.*—The following is a statement of the causes of deaths during 1891 up to date :

Months	Deaths from cholera					Deaths from other causes.					Total					Grand total.
	Act		Non-Act.			Act.		Non-Act			Act		Non Act			
	Men	Women	Men.	Women	Children.	Men	Women	Men	Women.	Children.	Men.	Women.	Men	Women	Children	
February	..	..	..			..	..	.	.	1	..	..			1	1
March	.	..	..	..	..	..	1		.	..	..	1	.	.	..	1
May	1	1	..	.	..	..	..	..	.		1	1		..	..	2
June ..	6	6	1	3	..	..	..	..	.	..	6	6	1	3	..	16
July	..	1	1	..	4	..	..	..	..	..	..	1	1	..	4	6
October	..	..	1	..	..	..	..	..	..	..	..	.	1	..	..	1
Total	7	8	3	3	4	..	1	.	..	1	7	9	3	3	5	27

The following are the dates on which the deaths occurred :

Cholera.

May	... 2	22nd June	... 1	2nd July	... 1	6th October	... 1
		23rd „	... 3	3rd „	... 1		
		25th „	... 1	8th „	... 2		
		26th „	... 6	12th „	... 1		
		27th „	... 2	15th „	... 1		
		29th „	... 1				
		30th „	... 2				
Total	... 2		... 16		6		1.

There were 6 recoveries from cholera also. There are but few deaths from other causes, because the more serious cases are transferred to the Silghát garden. Cholera was said to have been prevalent at the time in some villages not far from this garden.

7. *History of outbreak.*—The following is the statement given of the outbreak on the 21st June 1891. Seven men went to the Samaguri *hát*, about 14 miles distant, through fields and pathways. They left on Saturday. During the return journey on the following day, a man of the party, named Birsa, took ill of cholera and died on the road at the Diju bridge. His body was thrown into the river. The other six men were not affected. A woman died in the house of one of the party on the day following their return, after which cholera irregularly prevailed in the lines until 15th July; but as there had been two deaths in May and none of the six were affected, there is no reason to believe that cholera was imported by this party from the *hát*, though this is alleged to have been the case. The houses were disinfected with sulphur, and large wood fires were kept burning in the spaces between the rows of houses, and sulphur frequently used in these fires. The manager states that he obtained additional supplies of sulphur, in all costing Rs. 150, for fumigation. From what I saw I believe the manager has paid every attention in his power to the health of the coolies. The flooring under the patients that was soiled with cholera discharges was dug up and carefully buried outside the lines, and new earth was filled in. The bodies were burned at a distance from the lines away from the water-supply. The manager has been advised to repair, when required, the walls, and mud plaster them, and have a coating of limewash applied to them.

8. *Lines.*—The lines are on a site selected by a committee several years ago; it is fairly well elevated. The ground is sloping, and has good natural drainage. The houses were all thoroughly repaired during last cold weather, and are in good repair now. The huts are detached in three long sufficiently separated rows, though somewhat close to each other in the rows.

9. *Latrines.*—As in most gardens in the district, there are no latrines The coolies frequent jungly patches or tea bushes. There was no fœcal odour. There are many pigs in the lines.

10. *Food-supplies.*—The food-supplies are obtainable at the Jaklabandha *hát*, 1 mile distant, where rice is now sold at 5 pice per seer. The manager supplies rice at Rs. 3 to those who require it, but the coolies very largely buy *dhán* (just now selling at 8 *dones* per rupee), and husk it themselves for use. There is a shop near the lines. The food-grains were examined, and found to be good.

It could not be discovered that any improper food, such as unripe fruit, diseased meat, &c., had been used, though of course it would not be possible for the manager to control the food eaten by the whole of his people. During the busy season the people have sufficient time to cook their food.

11. *Water-supply.*—The water-supply is from the Kullong river. The manager says there are two *ghâts*—one upstream for drinking water, and one for bathing and washing clothes below this. It is well known that the river receives many impurities, that it is touled by the villages on its banks and by the boats passing up and down, and that the supply is totally unprotected, and there is more likelihood that the origin of the cholera is due to the use of such an unprotected water-supply. There is an unused *pucca* well at one end of the lines.

12. *Recommendations.*—The manager has been advised to have this well thoroughly repaired, the mouth raised, cleaned out, and its surroundings properly cleared and cared for. A force pump to be fitted to it, and an iron tank with taps to be provided. The whole to be under a shed, and a man to be told off to daily fill the tank for use, so that the water-supply in future will be protected, and more convenient and suitable to the requirements of the coolies. There are no other points requiring remarks.

Deputy Commissioner—

Mean strength on total population for 1891 was 207, deaths 28, rate 13·4. This garden was inspected by Dr. McNaught on 8th October 1891. Of the 28 deaths, 25 were from cholera which was very severe in June, in which month no less than 16 died, 6 of them on one day. Cholera is said to have been prevalent in the neighbourhood at the time. It is said to have first attacked a man on his way back from the Samaguri hát. I went over the lines the other day with the manager. A fine new well is in process of construction, and will be completed early in April. The coolies are well looked after, and but for this outbreak of cholera, the garden would have been a healthy one. This garden was also inspected by Mr. Brodrick on the 14th August 1891. Death rate for last three years was—

	Act coolies
1889	7·1
1890	8·1
1891	24·14
	Non-Act coolies.
1889	6·91
1890	1·37
1891	8·83

(7) SILGHÁT (*inspected on the 21st March 1892*).

Civil Surgeon—

1. *Population.*—The strength on the day of inspection was—

	Men	Women.	Children	Total.
Act I	110	105	...	215
Non-Act	11	21	100	132
Grand total				347

2. *Mortality.*—The mortality rate during the year 1891 was—

Act-I coolies	7·52 per cent.
Non-Act people	8·78 ,,

The death causes were—

Coolies.		Non-Act Adults.		Children.	
Cholera ...	4	Cholera ...	2	Dysentery	1
Suicide ...	1	Dysentery ...	2	Spleen	1
Accident ...	1	Diarrhœa ...	1	Erysipelas	1
Pneumonia ...	1	Childbirth ...	1		
Rheumatism ...	1	Apoplexia ...	1		
Paralysis ...	1				
Hæmoptysis ...	1				
Fever ...	2				
Debility ...	1				
Dysentery ...	2				
Total	15	Total ...	7	Total ...	3

The six deaths from cholera occurred at a time when the disease was prevelent in the Koliabar garden and also in the Assamese villages around. Excluding cholera, the death rate was not high.

There were 83 contractors' coolies imported during the year These partly contributed to the mortality, through not being acclimatized, and there were several deaths that could not be attributed to the conditions of tea garden life.

3. *Medical arrangements.*—The hospital assistant is Khairat Ali. There is an ample supply of medicines. *Thymol* and the hotel system of feeding weakly coolies have been in use for some time with great benefit and lessening of the daily sickness. Vaccination has been done successfully. At the inspection 2 men, 3 women, and 2 children were noted as anæmic. They were pointed out for the *thymol* treatment. Mothers whose children are sick are excused work to attend upon them. There were 12 births during the year. The medical arrangements are satisfactory.

4. *Lines.*—The lines are very good—well elevated, drained, not overcrowded, and in good repair.

5. *Latrines.*—There are no latrines. The people frequent the jungle and spaces amongst the tea bushes. As much stress has been laid upon the necessity for latrines on tea gardens generally, an effort should be made to comply with the recent general instructions regarding them.

6. *Water-supply.*—There is a deep *pucca* well with a masonry reservoir fitted with taps. This is filled by means of a force pump. The water is good, and has not failed. A new *pucca* well is being sunk. Water from the well is carried to the people who are out at work. Arrangements are satisfactory.

7. *Food-supplies.*—There are several shops close to the garden, and the usual supplies are obtainable. The people frequent the market at Joklabandha, distant about 4 miles. No complaints about supplies. Nothing else of special importance.

Deputy Commissioner—

There does not appear to be much wrong with this garden. All arrangements for water, food, &c., appear good. If the deaths from cholera (4), accident (1), and suicide (1), are deducted, the death rate amongst Act-I coolies is reduced to 4·18. Amongst the 132 non-Act adults, 4 of the deaths should not count. This leaves 3 deaths, making a death rate of 9·3, which is a very high figure. Three children out of 100 died. Over the whole population the deaths counting against the garden would make a rate of 4·3. The manager's attention will be drawn to the question of latrines. Silghat and Koliabara are under the same management. Mean strength of total population in 1891 was 318, deaths 25, mean rate 7·8 per cent. Of these 25 deaths, 6 were from cholera, 1 suicide, 1 accident, 1 in childbirth, 1 from apoplexy. If these 10 deaths are deducted, the death rate would be reduced to 4·7 per cent.

This garden was inspected by Mr. Brodrick on the 12th August 1891, and by Dr. McNaught on the 21st March 1892. The latter reports the medical arrangement and water-supply good, and suggests that latrines be introduced. The manager has been asked to have this attended to.

(8) BALIJURI (*inspected on the 28th March 1892*).

Civil Surgeon—

1. *Population.*—The strength on the day of inspection was—

	Men.	Women.	Children.	Total.
Act I	15	21	...	36
Non-Act	68	38	68	174
Grand total				210

2. *Mortality.*—The death rate during the year 1891 was—

Act-I coolies	7·27 per cent.
Non-Act people	8·21

The death causes were—

Act-I coolies.		Non-Act.		Children.	
Diarrhœa	1	Diarrhœa	1	Fever ...	3
Fever	1	Dysentery	1	Fits ...	3
Debility	1	Fever	3		
		Miscarriage	2		
		Cancer	1		
		Paralysis	1		
		Old age	1		
Total	3	Total	10	Total ...	6

The deaths amongst Act-I coolies were few, and the causes ordinary.

Amongst the non-Act people the six deaths amongst children has raised the percentage to above the average.

3. *Medical arrangements.*—The hospital assistant of the headquarters garden visits twice a week, and medicines are sent over daily by the dâkwalla (messenger). A small supply is also kept for urgent use. Serious cases of illness amongst the Act coolies are sent to Udmari for treatment. It seems probable that several of the deaths from fever were from influenza, as this disease has been prevalent.

4. *Lines.*—The lines are sufficiently elevated. The drainage is good naturally, but is in need of improvement, and a general cleaning up is necessary. This was pointed out.

5. *Latrines.*—There are no latrines. The necessity for these was pointed out.

6. *Water-supply.*—The water-supply is from a *kutcha* well. The water of a stream is also used. A new well on a good site is being dug, and this, if made *pucca*, will provide an ample supply.

7. *Food-supplies.*—These are obtainable at the Chupanalla *hât*. No complaints made about this.

8. *Recommendations.*—Recommendations made that the drainage of the lines be improved; that there be a general cleaning of the lines, and that they be kept clean; that latrines be provided agreeably to recent general instructions; that the well now being dug be made *pucca*; that a proper register of deaths, births, and vaccination be kept up in a separate book, and that as far as possible serious cases should be sent to Udmari for treatment and proper care.

Deputy Commissioner—

First appearance. Mean strength on total population for 1891 was 238, deaths 19=8 per cent. This garden was not inspected in 1891, but was inspected medically by Dr. McNaught on 28th March 1892. Eight of the deaths would not count against the garden, *viz.*, 2 miscarriage, 1 cancer, 1 paralysis, 1 old age, 3 fits, total 8. Deducting these, the death rate would be 4·6 only, so that the garden is really not a specially unhealthy one. The Civil Medical Officer has made several suggestions, which I will see are carried out by the manager

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SIBSÁGAR.

(1) Mariani (*inspected on the 30th March 1892*).

Civil Surgeon—

This garden was inspected by me on the 30th March 1892, a special sanitary inspection being made in consequence of the high rate of mortality among 'Act' coolies last year, it being 9·46 per cent., though only 5·22 amongst non-Act coolies. The mortality among Act coolies has been 6·06. This is still high, and the only explanation that can be afforded is that a certain amount of cholera occurred, that a large batch of coolies was brought up just as the rains broke, and an exceptional amount of mortality occurred amongst this batch. This year bringing up so many at so unhealthy a time has been avoided. The new coolies have been, as far as possible, brought up in the cold weather, and it is hoped that this may be productive of good results, and that the garden will resume its usual state of healthiness. All previous recommendations have been carried out, or, as in the case of the water-supply and new lines, are now being carried out. Drainage is good in new lines, but in the old the water does not run off readily, especially at the back of the houses. I pointed this out, and was told that it was being remedied. The ground is not below the level of the surrounding country, so there will be no difficulty in seeing to this.

Latrines.—There are none. The coolies ease themselves in the tea, and there is no fear of the water-supply being polluted thereby.

Food-supply.—Food is looked after carefully. The coolies are given sufficient time to prepare it, and good water is taken out to them when at work. New coolies are dieted, and all those suffering from diarrhœa or debility attend at the feeding depôt, and are fed there. Vegetables are sold in the bázár, and there is a good supply of them.

Water.—One large *pucca* built well at the tea house, two good ones in new lines, and one in segregation lines. The latter wants to be covered in and built up; it is not in use at present. The water from wells is said to have a good deal of iron in suspension, with the exception of the one near the tea house, and is rather bitter to the taste; otherwise is good. The old lines are supplied from the river, and arrangements are now being made to lay down pipes and supply all the lines with river water. The river here is deep and wide; its banks appear to be free from any source of pollution, and there are no villages along its banks; it ought to afford an excellent water-supply if well filtered.

General health appears to be good. Nearly all the coolies were of good physique. I noticed a few cases of scurvy, nearly all amongst a particular batch, and pointed out its presence.

Of the deaths that have occurred amongst Act coolies—

7	have	been due to	dysentery.
7	"	"	cholera.
3	"	"	fever.
3	"	"	pneumonia.
4	"	"	diarrhœa and bronchitis (two to each).
7	"	"	puerperal fever, dropsy, bedsore, debility, pleurisy, poisoning, accident (one to each).

There was one case of *anchylostomiasis* in a non-Act coolie. All cases of this disease are treated at once, and all sick and convalescent coolies are dieted and their food prepared carefully, and till fit they are not allowed to work. The poison cupboard is kept locked and properly labelled.

The new lines which are being built are excellent,—*pucca* built walls, and a good space is left for ventilation between the walls and overhanging eaves. Sixty new houses have been completed this year, and with a view to preventing any possible source of unhealthiness, they have been built on ground previously well drained and under tea, not on recently cleared jungle land. All the new coolies are lodged in these houses, and are provided with trestles 4 feet high to sleep on. The infant population is well looked after.

The garden is under the medical charge of Dr. Lawrence, who lives on it. Vaccination is thoroughly carried out. No jungle has been cleared lately, and no new coolies are allowed to work on recently cleared jungle ground.

RECOMMENDATIONS.

(*a*) Arrangements for a good supply of filtered water should be made with all possible speed.

(*b*) The water in the wells contains iron salts in suspension. I should recommend, and the same idea had occurred to Dr. Lawrence previously, that the well water should be allowed to settle in a tank after being drawn, so as to admit of all material in suspension to sink to the bottom, and then the clear water drawn off by some siphon arrangement from the upper level, and then filtered. Dr. Lawrence might give his valuable opinion as to how this succeeds if the experiment is tried first of all on a small scale, and as to the analysis of the filtered water thus obtained.

(*c*) The well near the segregation hut should be covered in and built up.

(*d*) The surface drainage of the old lines should be attended to without delay.

Every sanitary precaution seems to be taken on this garden, and I am sure that the great thing needed to ensure its healthiness is the speedy completion of a system for supply of good filtered river water to the old lines, and it is to be hoped this will soon be carried out.

(2) CINNAMARA (*inspected on the 29th March 1892*).

Civil Surgeon—

This garden was inspected by me on the 29th March 1892, a special sanitary inspection being made in consequence of the high mortality last year amongst Act coolies, amounting to 7·61 per cent.

The causes alleged for this excessive mortality are—(1) an outbreak of cholera, (2) the fact of two batches of coolies of particularly bad physique having been brought up that year to the garden. There seem to be some grounds for believing these to be the causes of the excessive mortality, as the garden has always been a healthy one hitherto, and all sanitary precautions are carefully carried out on it. And of the deaths which occurred, the larger proportion were among coolies belonging to the batches referred to since last inspection on the 23rd November 1891. The death rate amongst non-Act coolies has been almost *nil*, but amongst Act coolies it has continued to be high, 29 deaths having occurred in this latter class, of which—

Dysentery accounts for	7
Diarrhœa	6
Influenza and its sequelæ	8
Debility	2

and *anchylostomiasis*, puerperal fever, liver abscess, phthisis, fever, pneumonia account for one each. The epidemic of influenza has been very severe in this garden. The first case occurred on the 15th February of this year. In February, out of 402 admissions for all diseases 58 admissions were for respiratory affections. In January, out of 526 admissions 130 were for respiratory affections. In March, out of 813 admissions 657 were for respiratory affections. Sickness this year will have, therefore, been unavoidably increased by the epidemic of influenza, and not by any defect in hygienic or sanitary arrangements.

The drainage is excellent, the lines are well situated, and a deeply cut central drain with a good fall carries away all the water.

Latrines.—There are none. The coolies ease themselves amongst the tea, and nowhere near the vicinity of the water-supply.

Food-supply.—Food is good, and care is taken as to supply of vegetables. Dr. Banerji's recommendation that limes should be pickled and given out occasionally has been carried out, though not on a large scale. Only good water is used for cooking. When at work in the distant grounds, good water is brought out to the coolies; and they are allowed two hours for cooking their food in the middle of the day. All sick and convalescent coolies are carefully dieted on the 'hotel' system in depôt houses, and till they are strong they are not sent out to work. No sickness can be traced to sudden change of diet.

Water.—A large tank, well railed in and free from any source of contamination. It is at present being deepened, and this seems to be very necessary, as the water-supply this year seems to be scanty. This is attributed to the dryness of last season. The water is pumped into a cistern, from where it is then filtered, and supply pipes lead from the cistern of the filter. There are two wells, but these are now dry. They are well protected, railed in, and door kept locked, and water is pumped into a large stone tank outside and filtered.

The general health of the coolies is well looked after. There is an excellent hospital with good accommodation. There appears to be a certain amount of *anchylostomiasis*; it is treated with *thymol*.

There were two deaths entered as due to debility. Enquiry was made as to whether there was any chance of these being due to *anchylostomiasis*; and it was ascertained that one of these cases was admitted for cholera originally, and death followed from debility about a fortnight after; and the other case was debility due to remittent fever originally. The former case ought really to have come under the heading of cholera.

The poisons are kept under lock and key, and the cupboard containing them is properly labelled.

The children are well looked after, mortality being *nil*. This is surprising, and shows what good food will do. Probably had the adult coolies been accustomed to the same in their childhood and prior to coming to the garden, the mortality amongst them would have been the same as amongst any other community, or less. The conditions under which they now live are vastly superior to those enjoyed by any ordinary community.

Vaccination is carefully carried out.

The native doctor appears to be a well-informed man and to take great interest in his work. Blankets are given out, and flannel clothing is being issued to those suffering from influenza.

RECOMMENDATIONS.

(*a*) The native doctor should every fortnight hold a medical inspection of all the new coolies, as the only way to check the excessive mortality would seem to be by detecting disease early. The native doctor himself says it is very rare to get a new coolie coming to hospital at if ill.

(*b*) Special attention should be paid by the native doctor to scurvy, as there seems to be a certain amount among the new coolies. An issue of preserved limes should be made at least twice a week to all new coolies, as they come up from districts where scurvy is prevalent.

(*c*) The health of the garden is improving. The epidemic of influenza which has been raging last month will probably keep up the rate of mortality for the first half of the year, but during the second half the garden will almost certainly be found to have regained its character for good health, as all sanitary precautions are carried out thoroughly.

(3) GARIA HABI (*inspected on the 13th April 1892*).

Civil Surgeon—

A special sanitary inspection was made on the 13th April 1892, the mortality for the year 1891 having amongst Act coolies amounted to 7·61. Amongst non-Act coolies it had been only 1·07. The last inspection had been made on the 18th of May 1891, when no special recommendations as regards any sanitary measures were made. No special class of coolies has been unhealthy.

Lines and drainage.—The lines are placed on fairly high ground, and the drainage is good. The houses themselves are not good ones, there are several that should be condemned and rebuilt, others that require re-thatching. The eaves of the roofs come very low down ; this in itself is good, but the coolies have in many houses built up an outer wall to meet these low eaves, and have thus completely cut off all ventilation. They ought not to be allowed to do this ; and this was pointed out.

Latrines.—The coolies ease themselves in the tea. There are no latrines. They are not likely to contaminate the water-supply, as they go to a distance.

Food—Is sufficient, and is of good quality and is properly cooked. Vegetables are provided to those coolies who appear scorbutic, and there is a plentiful supply always in the bázár. Time for cooking food in the middle of the day is ample. Sickness cannot be traced to any sudden change of diet. New coolies and those that are sickly and the convalescent are dieted, and their food is cooked for them.

Water—There is a large tank well situated, railed in, and with no possible source of contamination near. Owing to the scantiness of the rainfall this year, the water in it became very low, and on the first heavy rain it became very muddy, and at the time of my inspection it was in this condition. Even after being filtered the water remained muddy. This is the first time this has occurred, and it is clearly due to the tank having run so very low this year. This sediment will have settled in a fortnight or so ; and as a good supply of water can be obtained from the old tank which was only given up because of its not being large enough, I see no reason to make any recommendation except that as there is no filtering apparatus attached to the old tank, its use should be given up directly it is possible. The new tank will not, I think, run as low another year.

General health.—The mortality since last inspection held on 1st May 1891 has amounted to 6·59 amongst Act coolies, ·6 amongst non-Act. There has been a great deal of influenza, and 4 deaths occurred in March, due to pneumonia subsequent to influenza.

No cases of *anchylostomiasis* have been under treatment lately, according to the registers, but I see several deaths have occurred from debility and dropsy, at least are so entered. On referring to one of these cases, that of 'Mithia', I find that this woman was admitted on 6th July 1891 for fever, then again in September for dysentery, and finally for dropsy and anæmia, of which she died in December. This case bears a striking resemblance to one of *anchylostomiasis*. The coolies were a fairly healthy looking lot. I saw two cases with symptoms which might have been those of *anchylostomiasis*, and drew attention to these.

Vaccination is carried out. Children are healthy.

Hospital is not a good building. A new ward made has not been erected on a high enough plinth. But as bad cases are, if it is possible to move them, sent to Cinnamara, there are not many treated in this hospital.

Since last inspection there have been—

6 deaths	due to	pneumonia
2 ,,	,,	chronic dysentery.
1 death	,,	cholera.
2 deaths	,,	dropsy and debility.
1 death	,,	general debility.
1 ,,	,,	anæmia and dropsy.
1 ,,	,,	glosso pharyngeal paralysis.
1 ,,	,,	chronic diarrhœa.

RECOMMENDATIONS.

(*a*) The houses pointed out at the time of inspection as unfit for habitation should be condemned and replaced by others, and that others should be repaired.

(*b*) The compounder should keep a careful look out for cases of *anchylostomiasis* amongst coolies coming under treatment for debility, anæmia, dropsy.

(*c*) Should the tank again become so low as this year, it ought to be deepened, but I do not think this will probably be the case.

This garden should, I think, recover its reputation for good health. It has been handicapped this year a good deal by influenza breaking out badly, and there have been four deaths due to this disease, so the mortality must this year continue somewhat high, though probably below 7 per cent. The water-supply from the old tank has not given rise to any outbreak of diarrhœa or other disease, and it will only have to be used for a short time; it seems to be good, and I have thought it unnecessary to make any further recommendation.

(4) HATIKULI (*this garden was not specially inspected by the Civil Surgeon*).

The following remarks are extracted from the ordinary inspection report of Mr. LeMesurier, Assistant Commissioner, dated the 18th December 1891:

A committee sat last year. The water-supply has since been perfected, and is now all that could be wished. The only recommendation was that the hotel system should be introduced for new coolies. This has been done, and all sickly new coolies are now regularly fed. It is a great pity the result has not been better, yet there is a marked improvement between the inspection of 1889 and 1890 (December to June). There were 27 deaths among Act-I coolies; between June 1890 and to-day there have been 30; since the 1st January 1891 there have been 4 deaths only. The waterworks were opened in April; in August the bund burst, and has only just begun to work again. Between 31st July and to-day there have been 6 deaths, 3 of them in August alone. I think this shows that the improved water-supply is having a great effect on the health of the garden. Of the deaths, 18 were of coolies who had been less than 12 months on the garden, of these 12 had been under six months, and of the latter 7 less than three months. It is fair to suppose that many of these were ill when they arrived; probably they were anæmic, as dysentery and debility often mean *anchylostomiasis*. These were *arkati* or depôt coolies. I find they were returned as from Hazaribagh, Manbhum, or Dumka (Santhal Parganas). I have, however, seen the survivors, and find they are all from Ghazipur or Benares. This lot are weakly, anæmic-looking, and dirty almost beyond belief. The manager tells me he has tried everything, but cannot keep them clean. They were fed regularly at the hotel, but the women show depraved appetites by eating mud, &c.

The importation of depôt coolies has now been stopped, and recruiting is conducted by garden sardárs under a European superintendent at Ranchi, all recruits being medically examined before they start. If this is done, mortality should go down. It would, perhaps, be best for the Civil Surgeon to examine the coolie when he comes down, and cancel such agreements as may be necessary; otherwise I fear these coolies will only die, and, as the manager says, they are at present no use, but a costly encumbrance. The same remarks apply to the deserters. Out of 51 of these, 39 had been only a few months (five or six) on the garden before they deserted. They were all brought up this year or last. It is no wonder these people deserted. I have already described the class. They were depôt North-Westers, sent up under false description and probably under false pretences; to such people stopping on the garden meant continual sickness and frequently death. It is no wonder they deserted. The Mikir Hills, at the foot of which the garden lies, with the hill tracts over them, give a ready and tempting means of escape, and two outbreaks of cholera would drive them out in panic. Cholera broke out in July 1890, when there were 7 deaths and 11 desertions, and again in April 1891, when there were 4 deaths but no desertion, but 5 in the next two months. Again in October 9 deserted, all of whom had come up in the rains. This is the season when the roads become open, and flight is possible.

Once the importation of the above class of coolies stops, I expect to see the garden become healthy. The low death rate among the non-Act population, chiefly junglis, leads me to form this expectation.

Deputy Commissioner—

Were it not reported that recruiting from depôts has been stopped, I should recommend this garden as particularly calling for action under section 130 of Act I of 1882. Perhaps the management might be informed that action is not taken for the reason given; and if contractors' coolies are again imported while the garden remains on the unhealthy list, that section 130 and the following sections will be enforced.

(5) HALMIRA (*inspected on the 17th April 1892*).

Civil Surgeon—

A sanitary inspection of this garden was made on 17th April 1892, the death rate for the year 1891 having been 101·5 per thousand. No particular reason for this excessive mortality could be assigned. The newly arrived coolies were the heaviest sufferers. There has been a distinct improvement in the health of this garden. The mortality since last inspection on 31st July 1891 has been 5·5 per cent. amongst Act coolies, 1·2 amongst non-Act.

Lines and drainage.—The new lines which are partly completed are excellent with good natural drainage. The houses are built halfway up *pucca*, and then the walls are composed of *ekra*, the roofs coming down at a good incline, forming an excellent verandah. The old houses are wretched, many of them quite unfit for habitation; and though some of these have been abandoned, yet as there is not room yet in the new lines for all the coolies, those old houses still being occupied ought to be put into a proper state of repair, as it will be some months before all the new houses will be completed.

Latrines.—There are none. The coolies ease themselves in the tea near the lines. I have pointed out to the manager the favourable opportunity which now presents itself of stamping out *anchylostomiasis*. Now that the old infected ground is being abandoned and the new lines are being built at a distance, latrines on the trench system could be started under the most promising conditions for success, and it would only require a little careful supervision at the outset to ensure it.

Food—Is sufficient. The coolies are said to buy vegetables, but I do not think they do sufficiently. Only good water is used for cooking, and ample time in the middle of the day is allowed for meals. All new and weakly coolies are dieted.

Water-supply—Is from a well which does not run dry. It is situated near the new lines; it is situated rather too near a *bhil*. Another well was in course of construction, but the sides fell in, and the idea of making it has been abandoned. This is, I think, a great pity, as it was in a good situation, very deep, and promised to afford an excellent and plentiful supply. The manager talks of making a tank, but nothing seems to have been definitely settled on. I should certainly recommend an additional supply to be provided, as the one well at present in use is too far away from the further end of the new lines.

General health—Appears to be good. I carefully examined every coolie, as it happened to be pay day, and an excellent opportunity was afforded to me as each man came up to be paid. The absence of enlarged spleens amongst them shows that the site is not a malarious one. About 30 cases of *anchylostomiasis* had been carefully treated since last June with *thymol*, and I examined all these, and found that they were now nearly all in very fair health. On examining the hospital register, I found that four of these cases, after having been admitted and *anchylostomes* having been expelled under treatment, again returned in a short time suffering from debility. They were again treated with *thymol*. But on this occasion no *anchylostomes* were expelled. Thus the efficacy of the previous treatment was proved, and under tonics and good feeding they recovered their health.

The hospital is a good building, well suited for its purposes.

The poisons are not kept in a separate cupboard, and this should be seen to. The hospital assistant qualified in the Calcutta Medical College, and is a good man. I was greatly pleased with the way he recognised and treated cases of *anchylostomiasis* in the early stage of the disease.

The newly arrived coolies are fed and looked after, and have not been working on newly-cleared jungle land.

The children are well looked after. The mortality amongst them is, however, somewhat excessive. Of the deaths, 5 have been due to dysentery, 4 to cholera, and 4 to fever.

RECOMMENDATIONS.

(*a*) The old houses which are still in use ought to be repaired sufficiently to make them habitable through the rains, as the new lines are not likely to be all completed for some time.

(*b*) An additional well ought to be made soon. The present one is too far away from a portion of the new lines, and though the water in it is said to be good, it is I think too near a *hula*, and might be liable to contamination.

(*c*) Trench system of latrines should, if possible, be introduced. As Dr. Giles pointed out, abandonment of an old infected site is one of the best means of stamping out *anchylostomiasis*, and in this garden this has been done; but as there are probably cases of the disease still existing and at any time new cases may be introduced, to ensure its never again getting any firm hold, I think latrines on the trench system should be given a thorough trial.

(*d*) Poisons should be kept in a separate cupboard, and locked up with a label affixed.

This garden should, I think, become a healthy one under the improvements that have been carried out, and if it had not been for the four cases of cholera, the mortality since last inspection would have been comparatively small.

(6) BIHORA (*inspected on the 31st May 1892*).

Civil Surgeon—

Since the 16th of December 1891, when the last inspection was held, up to the date of the present inspection there have been 11 deaths amongst Act coolies, giving for these five and a half months an average death rate of 4·04 per cent. Amongst non-Act coolies there has been one death, giving a percentage mortality of ·55 for the same period of time. Of the deaths amongst the Act coolies—

6 were due to *beri-beri* or *anchylostomiasis*.
2 ditto cholera.
1 was due to heart disease.
1 ditto chronic pneumonia.
1 ditto drowning.

Three of these deaths, due to *anchylostomiasis*, occurred amongst coolies who had not been a year on the garden.

The committee held on this garden in March 1891 reported that all the recommendations previously made had been carried out; since then it has been inspected twice—on 27th June 1891 and again on 16th December 1891, and no further recommendations have been made, with the exception that it was suggested that the importation of North-Western Provinces coolies should be stopped.

The great cause of mortality has been *anchylostomiasis*, over 50 per cent. of the deaths which have occurred being due to this disease. It is difficult to trace the conditions which favour its rise and spread. In many cases the coolies actually arrive suffering from it. I saw one man at the hospital who had only arrived a fortnight before and who was in an advanced stage of the disease. It was difficult to trace the mortality to any particular class of coolie. Those that had come from Hazaribagh and that part of the country seemed to have suffered most. There is no doubt, I think, but that many of the coolies who came up were from the very first subjects for hospital treatment. Dr. Bishop, the medical officer of the garden, states this very strongly.

Lines and drainage.—The lines are situated on fairly rising ground which is well drained, as there is a good fall on each side. On one side the surface water drains off into a deep *hula* with precipitous banks; but there is no proper exit to this *hula*, and I do not consider this is satisfactory, as water is likely to accumulate and the ground to become marshy.

The houses are situated on plinths, which are not high enough, being raised only just off the ground level. There are some excellent deep drains cut round the four sides of the houses, which to a great extent compensate for this want of height in the plinth. The manager proposes, I believe, to change the site of these lines to some high grass land at some distance off. I should strongly advocate this being done, though before the new lines are occupied, all the jungle adjoining this ground should be cleared and cut down. The houses are fairly good as a rule ; some however are bad ones and out of repair.

Latrines.—There are none. The coolies make use of the nearest convenient place. As a step towards checking *anchylostomiasis*, I have urged on the manager the advantages of latrines on the trench system.

Water.—A good sized tank close to the lines with a large filter and cistern and taps. This tank is railed in. The *hula* which I have mentioned before is close to it, and this, I think, is objectionable, as there is no proper means of draining off the water from the *hula*. The tank water seems to be good in all respects, but last year, which was an unusually dry one, the water became very low, and for a short time water was drawn from a large *bhil*, which is at some distance away, and the water of which was previously reported on badly. There are no wells.

General health.—All the coolies were mustered, and I carefully examined every one. The medical supervision and care is excellent. There is a well qualified hospital assistant on the garden, and Dr. S. O. Bishop visits the garden every week. Cases of *anchylostoma* are returned under correct heading. All cases of *anchylostomiasis* are taken under treatment directly the first symptoms appear, and all severe cases are excused work altogether. I saw over fifty patients suffering from this disease at the hospital. One of these cases was the man I have already mentioned as having arrived only a few days previously from Lower Bengal. All these cases are treated with *thymol*, the majority with suc. ess and I saw some excellent results ; but there are many other cases which, though taken soon after arrival under treatment and though the parasites are expelled by the drug, yet they never make a favourable recovery. The general physique of the coolies was not very good ; but except those that were under treatment in the hospital, I saw none who were ill or anæmic. I saw some cases of scurvy, and recommended that pickled limes, and if possible vegetables, should be served out. All coolies who are ill and those who are convalescent are fed at the feeding depôts. None that have only recently arrived are set to work on uncleared jungle land.

The poisons are properly locked up and labelled. The infant population is carefully looked after. The food appears to be good and ample, with the exception of the lack of vegetables.

Recommendations.

(*a*) The lines should be moved to the high grass land site shown to me by the manager. I would strongly recommend this, because, in the first place, the present houses are not in many instances good ones ; secondly, they are nearly level with the ground, and the new houses built could have high plinths made, which would be much more healthy ; thirdly, the closed *hula*, which is close to the lines and into which they drain, is, I consider, very insanitary.

(*b*) Before the coolies are moved into the proposed new lines, all the jungle near should be cut down and proper wells or other good water-supply provided, as the present tank would be too far away to be available.

(*c*) Limes should be served out regularly, and if possible fresh vegetables, and great care should be taken as to supplying only good water where the coolies are at work. This is done at present, but it is so important a matter in checking the spread of *anchylostomiasis* that it is impossible for too great precautions to be taken.

(*d*) When the lines are moved, latrines should be made, and every effort made to induce the coolies to make use of them.

The mortality is very great on this garden, and it can nearly all be traced to *anchylostomiasis*. The only way by which it can be checked is by constant watchfulness as to the water drunk by the coolies and by moving the lines to a non-infected site, and seeing that this site is kept free from infection by the use of latrines and the strictest cleanliness. But when new coolies actually arrive with the disease latent, the slightest lapse in these precautions would at once favour the spread of the disease again.

(7) Sonari.

A committee was held on this garden under section 128, Act I of 1882, on the 20th April 1892, and the following proceedings were recorded :

Present—The Officiating Deputy Commissioner, Inspector of Labourers ; Civil Surgeon, Inspector of Labourers ; Mr. W. Walker of Dupling tea estate, employer ; Mr. A. J. Horrocks of Towkak, employer ; Dr. Lavertine, visiting doctor of gardens.

The statement below shows the death rate on the garden for the last five years amongst Act coolies :

	Act.	
	Deaths.	Percentage.
1887	21	9·43
1888	12	4·86
1889	34	10·80
1890	24	7·44
1891	39	15·52

The number of Act labourers at present on the garden is 212. During the four months of the year 1892 there have been 6 deaths among Act coolies, or 2·87 per cent. on the number at present on the garden, in nearly four months. Of these deaths, however, 2 were due to cholera and 1 to choleraic diarrhœa. Outbreaks of cholera have, however, occurred within the last few months on many of the gardens in the neighbourhood, even those ordinarily healthy. Excluding deaths from cholera and choleraic diarrhœa, the percentage for the four months is 1·1, which is not excessive. The lines are being moved to a new site, that which was suggested by Dr. Banerji, late Civil Surgeon. This site is at a greater distance from the Towkak river than the old lines, and a great improvement in the health of the garden may be expected from this step. About 80 Act coolies have already been moved into the new lines, which, it is expected, will be completed within about two weeks. The new houses are raised on high plinths, and the ground surrounding them well drained.

The native doctor, who was complained of, has been dismissed, and a passed man from the Dacca Medical School engaged in his place. The garden has also been brought under the supervision of a European doctor, Dr. Lavertine.

The water-supply is now taken from a large 'Raja' tank to the west of the garden, which used to be dry owing to the *bund* having been cut. The *bund* has been repaired by the manager. The tank contains a good deal of vegetation, and the water requires filtration. We recommend that the water be pumped through pipes to a cistern between the lines and the tank, and there filtered. A filter should be provided as soon as possible. When this is done, access to the tank should be prevented by surrounding it with a fence. The neighbouring villagers should be allowed to take filtered water from the garden filter, when they also can be prevented by a police order from resorting to the tank. We also recommend that the trench latrine system, recommended by Dr. Giles, be introduced on the garden. It appears from the cash book that unrealizable advances to the amount of Rs. 2,534-2-3 have been written off. There are no excessively large amounts now outstanding, and the manager has instituted a system of recovering from bonus on renewal of agreement instead of from monthly pay. We consider that the recommendations made by the Deputy Commissioner at his last inspection have been complied with, or are being complied with, in every detail by the new manager, Mr. Kinghorn, who took charge in the beginning of December 1891. Special attention is being paid to *anchylostomiasis*. In the dispensary there is a list of 140 cases, which have been treated by Dr. Lavertine since the 14th December. Cases of this description were formerly probably neglected entirely, and conduced greatly to the unhealthiness of the garden.

(8) Bihubar (*inspected on the 30th April 1892*).

Civil Surgeon—

A special sanitary inspection of this garden was made on 30th April 1892, as the mortality amongst the coolies, both Act and non-Act, had, during the year 1891, been 13·6 per cent. The mortality causing this very high percentage had occurred chiefly during the latter half of the year 1891, as at the last inspection, which was made by the Civil Surgeon on the 9th July 1891, the percentage of deaths during the preceding ten and a half months had been 3·7 only amongst the whole body of coolies, though amongst Act coolies only it had been 7·36.

At the last inspection there were only 255 Act coolies, now there are 498, and the percentage of deaths since last July 1891 is 14·62. In July 1891 there were 156 non-Act coolies, now there are 316, and the percentage of deaths since that date is 13·38.

Causes of excessive mortality.—The reasons assigned by the manager for this very high death rate are the facts that he has had a bad class of coolie imported lately from the Central Provinces, and that cholera was introduced into the garden by some Kacharis he employed, and caused great mortality. There have been a great number of deaths from cholera, but there have been also an extraordinarily large number attributed to dysentery and debility.

There have been—

38	deaths	from	cholera.	4	deaths	from	influenza.
23	"	"	chronic dysentery.	3	"	"	dropsy.
15	"	"	debility.	2	"	"	bronchitis.
6	"	"	fever.	1	death	"	unknown causes.

The coolies from the Central Provinces have suffered most severely, but there is good reason for this, as they have only arrived recently and they live in the lines on the river bank, probably getting their water from the river. The Ganjamis who live in these lines have suffered nearly as heavily. There is no doubt but that the very indifferent water-supply has had a great deal to do with the spread of cholera, as when once it was introduced from outside, with a readily contaminated water-supply, there would be no obstacle to its spread. There is also a great deal of jungle surrounding the lines coming right up to them, and the ground near is not well drained.

The garden itself is situated on fairly high ground, but has most dense jungle coming right up to it, and an enormous amount of jungle has been cleared off within the last two and a half years, the garden having only been started in 1889.

This jungle contains an enormous amount of undergrowth and vegetation, and a great deal of malaria must exist in it, and I found the coolies had been suffering a great deal from fever and spleen.

The want of good drainage to carry off the surface water must also contribute greatly to keeping up a high rate of illness and mortality.

Sanitary measures previously recommended.—All the recommendations made at last inspection are in course of being carried out,

(1) Two new sets of lines have been built at a distance from the river, and it is hoped shortly to make another set.
(2) A good well has been made in the new lines, but owing to delay on the part of the agents the pumping machine has not yet arrived, and is not yet in use.
(3) A good deal of jungle has been cleared, but there is still a great deal too much and fresh undergrowth has in some places sprung up.

As yet there has not been time either to carry out these measures thoroughly, or to test the advantages that may arise from them.

Lines and drainage.—Formerly all the lines were close to the bank of the river, but a great portion have now, in accordance with previous recommendations, been pulled down, and new ones built at a distance. There are, however, still a large number of houses occupied along the river bank. Nearly all of these are built on low plinths, much too low to be of any use, and there is no proper surface drainage ; and there is a lot of stagnant water lying about them. The jungle near them has been cut down once, but a lot of undergrowth has sprung up again.

The houses themselves are bad ones ; they are small, and they ought to be pulled down as soon as possible. The new set of lines is situated on fairly good ground far enough from the river to prevent the coolies taking their water from it. The houses are on plinths which are much better and higher than the ones in the old lines, but they might be made even still higher, and I recommended that this should be done when new houses were added on. They are separate, and their walls are made of *nal* plastered over.

The surface drainage is very bad. There are no proper drains, and a little below these lines is a *hula* into which surface water finds its way. But this *hula* has no exit, as there is a *bund* across it where the ground falls away. Consequently all the ground remains in a state of swamp. This ought to be remedied at once. There is a good deal of jungle coming up very close to the new lines ; in fact, one row has it right up to the back of the houses in it. All this ought to be cut down.

Water-supply.—There is the river near the old lines, and in spite of all restrictions and precautions on the part of the manager, the coolies living here still will drink from it. A new *pucca* well has been made in the new lines, which ought to be an excellent one, but it has not yet been made use of, as the pumping apparatus, though ordered a long time ago, has not yet arrived. It is expected this month. This well is free from all sources of pollution ; it is covered in, but should have a railing made around it, and a filter should be provided. At present the coolies draw water from a large 'Raja's' tank, which is situated close to the new lines. They are not supposed to do so as a rule, but the old well between the new and old lines which was formerly made use of has lately been giving water with a very evil odour. I could not detect this myself ; but it is possible some animal may have fallen into it, and in any case this well should certainly be cleaned out. This 'Raja's' tank should afford an excellent water-supply. It is of large size, and has been lately cleaned, and if it was looked after, would afford an excellent reserve should the wells run dry. At present, however, there is no means of drawing water from it except by walking in and dipping a pitcher in ; it has no railing round it, and buffaloes can and do wallow in it. The manager says he has not railed it in, because he was informed when he laid out his garden that he could not acquire this tank, as it was a public one. The only people near, however, live in one small village ; and if they were allowed to draw water from any cistern that was erected, it would be an excellent thing for themselves and for the coolies on the garden if the tank were railed in and looked after and a proper apparatus for pumping up water from its centre into a cistern was obtained. It ought to be excellent water if the tank is cleaned out and looked after. This might be done in the future, as just now the manager has gone to great expense in making a well and getting out apparatus for it, and this well ought to furnish a sufficient supply together with the old well ; but should it be found not to, some arrangement ought certainly to be made with regard to this tank.

Food—Is sufficient. There is a lack of vegetables. There is no *hát* on the garden, but a Bunnia's shop. The grain he supplied appeared to be of good quality, but the rice was most inferior, and I pointed this out to the manager. For cooking their food the coolies undoubtedly often use river water. They are supposed to bring out good water, and it is also sent out by water-carriers when they are at work. New coolies, if they require it, on arrival are dieted, but it is not a rule for all new coolies to be dieted in this way. Excessive sickness cannot be attributed to any sudden change in diet. I think it is very likely that the Bunnia who has his shop in the garden may supply them with inferior food stuffs, as he seems to have a monopoly and there is no *hát*. I examined all his grains, and, as mentioned, found his rice to be most inferior.

Latrines.—The coolies, judging from the bad odour, seem to frequent the *hula* already referred to. The manager on my recommendation said he would make trench latrines on a suitable site.

General health.—All the coolies were mustered. Their general physique was not very good, but they seemed well fed and nourished. I detected several cases of probable *anchylostomiasis*, which I pointed out. There have not been any cases of this disease treated. The medical arrangements were not very good. The hospital is good enough, and there is a good segregation hut for cholera cases. The hospital assistant is a qualified man of the Calcutta Medical College, but he did not seem to be doing his work well. The manager tells me that he arranged at the beginning of this year for a European medical man from Dibrugarh to visit the garden monthly, but so far the latter has never come in spite of all the sickness existing. There are undoubtedly cases of *anchylostoma* which the hospital assistant has not detected. Poisons were not locked up, but lay mixed up on the shelves with other medicines. Coolies when sick are fed, and are not allowed to go out till they are strong enough to work. Special attention is paid to the health of the children, but they suffer greatly from enlarged spleens. This however seems to be often the case up here, and I do not think it is due altogether to malaria. There is no doubt that the inferior water supply on this garden accounts for much of the

cholera and dysentery, as though the river water is prohibited, it is still used by some of the coolies, and there is as yet no other source of really good water, as the Raja's tank at present used is very liable to pollution, and the new well is not yet in use. The garden also being situated on a new clearing with very dense jungle coming close up to the lines must at first be unhealthy, especially as new coolies have been employed, as the manager found it impossible to get a sufficient number of acclimatised ones or local labour.

RECOMMENDATIONS.

To counteract all these insanitary influences, I would recommend :

(1) Good drains be cut down the centre of the lines and also at the back of the houses, these drains leading with a good fall into the *hula*, which should have a deep channel cut in its centre to carry off this water. This channel should lead through the *bund*, which now blocks up this *hula* and converts it at present into an unhealthy marsh.

(2) The jungle growing at the back of the new lines should be cut down, and all the undergrowth near should be kept down.

(3) The old lines which are still remaining should be removed as soon as possible, and all new houses should be built on high plinths and away from the river.

(4) The tank should be railed in, and arrangements made for pumping water from it into a cistern, so that the water cannot be contaminated by men and animals walking into it to drink and bathe. The old well should be cleaned and filters set up for it.

(5) The hospital assistant should be made to hold weekly inspections of the coolies, and keep a careful look out for cases of scurvy and *anchylostomiasis*. Poisons should be locked up in a cupboard, which should be labelled properly. Proper medical supervision should be insisted on.

This garden should be inspected again within a short time from the present date.

Deputy Commissioner—

It is evident that sanitation has been grossly neglected on the garden. It is on a newly cleared and unhealthy site, and it would appear that new coolies were hastily crowded into the lines and that sanitation was not thought of till afterwards. The manager and proprietors have been most dilatory in complying with the recommendations made by the Civil Surgeon at the last previous inspection in July 1891. I think that action under section 130 of Act I of 1882 might be taken with regard to this garden.

(9) HATICHUNGI (*inspected on the 12th April 1892*).

Civil Surgeon—

A special sanitary inspection of this garden was made on 12th April 1892, the total average mortality having been 7·86 per cent. in 1891 and the mortality for Act coolies alone 10·57. Since the last inspection on 23rd October 1891 the mortality amongst Act coolies has been 2·76 and amongst non-Act *nil*. This shows a most marked improvement. It was not found necessary to make any recommendations at the last inspection. Sickness has not been predominant amongst any special class of coolies more than another, and, excepting for influenza, there has not been any special sickness.

Lines and drainage.—The houses are made of *bajal* (*i.e.*, bamboo), and are not plastered over with mud, and consequently afford no protection against wind and driving wet. This certainly should be seen to. Drainage is good. Water runs off into a big *nulla*, and is carried off.

Latrines.—The coolies make use of the tea, and go to a distance where there is no chance of their contaminating the water-supply.

Food—Is sufficient, and is properly cooked. Limes are issued to the coolies. Only good water is used for cooking. New coolies and sickly and convalescent are dieted, and till they are fit are not put on hard work. No sickness can be attributed to sudden change of diet.

Water.—One deep *pucca* built well—an excellent one in all respects, giving an ample supply. Water is pumped up into a *pucca* reservoir with iron taps.

General health.—Physique of the coolies is excellent—a particularly good batch of new coolies. Medical treatment carried out carefully by a qualified compounder under the supervision of Dr. Shand of Cinnamara. The hospital is a good one. There have been eight deaths since last inspection—

3 from dropsy and diarrhœa.
1 „ debility after dysentery.
1 „ „ „ pneumonia.
1 „ bronchitis.
1 „ dysentery after cholera.
1 „ cholera.

The last two were found on arrival to have cholera. There are a large number of entries of dropsy and diarrhœa in the hospital register. On looking up one of the cases which died on 12th December 1891 and was entered under this heading, I found she had been admitted previously in October 1891 for *anchylostomiasis* and had been previously under treatment in February and March 1890. It is quite possible that other cases entered as 'Dropsy and diarrhœa' should properly have come under the heading of *anchylostomiasis*. The case I refer to was treated quite correctly with *thymol* in the early stage, and it is only the nomenclature under which the compounder entered her case that any objection can be taken to, as it is apt to be misleading. The health of children is good.

RECOMMENDATIONS.

(*a*) The houses be properly plastered and efficiently protected against the wet and wind. At present they are not.

(*b*) The compounder be directed to enter cases he is treating for *anchylostomi* as *anchylostomiasis*, and not under the heading of their symptoms, as in the case of Gubari, referred to. The treatment is carried out most properly and correctly; it is only the mere matter of nomenclature that is apt to be misleading in the returns.

This garden ought to be a healthy one this year; it already shows great improvement in the amount of mortality and sickness, which is diminishing.

(10) DHEKIAJULI (*inspected on the 29th March 1892*).

Civil Surgeon—

This garden was inspected by me on the 29th March 1892, a special sanitary inspection being made in consequence of the high rate of mortality last year, it being 9·51 amongst Act coolies and 5·18 amongst non-Act coolies. Since last inspection on 9th September 1891 up to present date the mortality has been 4·4 per cent. amongst Act and 1·69 amongst non-Act coolies. This is still high for the former, and no satisfactory explanation can be afforded. All previous sanitary recommendations have been carried out. I am inclined to believe that the proximity of the Dhekiajuli river, in which the water is decidedly unfit for drinking, has something to do with the high mortality, especially as a great amount of illness is due to bowel complaints. This water is not supposed to be drunk or used for household purposes, as there is an excellent and sufficient supply of filtered water from a tank in the lines; but the river is so handy for the coolies that I have no doubt but that unless great precautions are taken, they will make use of it, and probably often do so. The mortality has not been marked amongst any special class of coolies, nor in any one portion of the lines more than another.

Drainage and elevation of the lines are good. The houses are excellent,—well built and well ventilated.

Latrines.—None in use. The coolies are said to relieve themselves amongst the tea, but I believe the river banks afford a greater attraction, and, I suspect, are visited more than the tea. There was visible evidence of this.

Food-supply.—Food is good. Vegetables are supplied by the bázár dealers. Tank water is used for cooking purposes, and is carried out to the coolies when at work, and they are allowed ample time for cooking. All sick and convalescent coolies are dieted.

Water.—A large tank well supplied with water all the year round. The water from it is pumped into a reservoir, and filtered before being issued. Pipes with taps lead from cistern of filter. There is no possibility of contamination.

General health is well looked after. The compounder in medical charge was passed as competent by Dr. Banerji, though he had previously criticised his efficiency. Dr. Shand, of Cinnamara, visits the garden. There is a small hospital in the garden, which rather requires a porch or verandah, as there is very little room in it for sick coolies to wait. Bad cases capable of being removed are taken into the Cinnamara hospital. I saw one case of *anchylostomiasis*. It had been under treatment off and on for nearly three years. There were a good many cases of anæmia, some of which might bear further investigation as to their cause.

Sick and convalescent coolies are fed upon the 'hotel' system, and are not allowed to work till fit.

The infant population is well looked after, and is healthy.

Of 21 deaths amongst Act coolies, 9 were from dysentery, 2 from influenza, 1 from diarrhœa, 3 from dropsy, 2 from debility, 1 from erysipelas, and 1 each from fever, hydrophobia, and old age. The case returned as dying from the last malady was only aged 50; rather premature this. Vaccination is carried out thoroughly.

RECOMMENDATIONS.

(*a*) I believe the proximity of the Dhekiajuli river to the lines may lead the coolies to draw river water for household purposes in preference to going very little further for good tank water, and the large amount of disease due to bowel complaints may perhaps be explained in this way. I should recommend that strict supervision be carried out over this, and that chaukidárs be employed to prevent coolies either drawing water or making use of the banks of the river to ease themselves by. There is just sufficient brushwood to form a favourable shelter for them, and with their partiality for performing the duties of nature near to water, they are, I think, very likely to make use of this ground. If, as I suspect, they also draw water for household use from here, a source of disease is at once evident.

(*b*) The compounder, who, though up to the standard, is not a bright man, should be told to pay more attention to the classification of diseases admitted at present as 'Dropsy,' 'Debility,' &c., and if possible to define their nature more strictly.

(*c*) A verandah or shelter for the patients coming to hospital is, I think, required, as the hospital is a small building, and I saw patients having to wait for medicine in the rain and wet from want of shelter.

Deputy Commissioner—

If the health of the garden does not improve, the lines will probably have to be removed altogether from their present site.

(11) SOICATTA (*inspected on the 27th November 1891*).

Civil Surgeon—

(*a*) Light work should be given to new coolies for the first three months after arrival. At present the new coolies are made to do generally the same amount of work as the old and acclimatised ones.

(*b*) All new coolies should be fed by the manager for six months after arrival in the garden. The dietary for an adult to consist of—

Rice	...	...	...	...	1 seer.
Dal	...	...	...	...	2 chhataks.
Vegetables	...	...	...	...	2 "
Milk	...	...	...	...	Twice a week.
Fish	...	...	...	..	Once a week.
Oil or ghi	...	...	...	...	One chhatak, and salt.

(*c*) Proper ceiling (*ekra* mud plastered) should be put in coolie houses.

(*d*) The present tank should be cleaned and deepened, and filtering reservoir carefully looked after.

(*e*) Every new coolie should be supplied with a pair of blankets.

(*f*) The present compounder should be removed, and a duly qualified native doctor should be entertained in his place.

(*g*) As the garden has been on the black list since 1889, I would recommend that a committee be held on this garden early next year.

(12) DEERING.

A committee was held on this garden under section 128, Act I of 1882, on the 13th March 1891, and the following proceedings were recorded :

Present—The Officiating Deputy Commissioner, Civil Surgeon, Dr. S. O. Bishop, Superintending Doctor, Mr. St. G. Showers, employer.

The death rate on this garden in 1889 was among Act coolies 45·5 per cent., among non-Act coolies 10·82 per cent. The death rate among Act coolies in 1890 was 25·99. In both years the high percentage was due to cholera. Besides cholera, there were a few cases of dysentery. Cholera was imported into the garden from the neighbouring villages.

The water-supply has hitherto been the Deering stream—a small stream running down from the hills. Since the last inspection a well is being sunk. The water will be pumped up into a masonry reservoir with filters and cocks to draw off the water. The committee is of opinion that this will afford a sufficient and proper supply of drinking water.

There is a separate hospital with accommodation for in-patients and a sufficient supply of medicines. The committee is of opinion that nothing further is required in this direction. There is a duly qualified native doctor.

The lines are not satisfactory. In the opinion of the committee, the plinths of the huts should be higher. A regular system of drainage should be substituted for the present drains. Cowsheds should be built away from the lines, and as many houses as possible should be removed to a high ridge of ground at a slight distance from the present site.

The coolies were mustered. The sick list to-day was one child suffering from fever. Only one case of incipient *beri-beri* detected among the coolies. The labour force was, on the whole, very healthy.

The committee is pleased to remark that there has been a change of management, and the garden is now under a European manager instead of, as previously, a native muharrir.

As regards importation of coolies, the committee is of opinion that there is no reason to declare the garden unfit for the residence of new coolies, provided that, until the effect of the improvements suggested above is seen, such coolies should be located in new huts on a site away from the present lines.

The following remarks are extracted from the ordinary inspection report of Mr. LeMesurier, Assistant Commissioner, dated the 18th December 1891 :

A committee was held last year, and its recommendations have been, or are being, carried out. A new well will be sunk, the old one having proved a failure, as soon as water is found, and a separate block of huts will be built for new coolies on the site recommended by the committee this season. The committee was held in March, so that no clearing or house building could be done. Meanwhile, new coolies are being segregated and fed, as recommended, in a block of houses away from the lines. All told, there have been only 8 deaths amongst Act labourers, one of which, a case of suicide, should in fairness be deducted when calculating the percentage for other than statistical purposes, and these in eighteen months (from 24th June 1890 to 18th December 1891). Only 4 Act coolies have died during the past twelve months.

On analysing the death rate, I find that only one Act death had been so long as eighteen months on the garden. The others are as follows :—two months, five months, one month, three months, five months, and six months (I have excluded the suicide). One of these was *anchylostomiasis*, and the others (chronic dysentery 4 and pneumonia 2) probably had had the disease. This suggests that the men were almost moribund when they came up, and so in fact the manager tells me they were. I am glad to say that the management have absolutely stopped recruiting through contractors or depôts (whence this year's men came), and are taking to sardárs, whose coolies will be medically examined before they start, and there is a European Superintendent of recruiting to select them.

Remembering that for the last two years the Act and non-Act death rates were respectively 45·5 and 10·82 per cent. in 1889 and 25·99 in 1890 for Act coolies, I consider great improvement has been made, and that there is now good reason to hope the garden will clear itself.

LAKHIMPUR.

(1) Margherita Tea Estate (*inspected on the 18th April 1892*).

Civil Surgeon—

On this garden there are two sets of lines, in the largest of which there is no proper water-supply. The present source is a small stream, to which the following objections apply. The distance from the lines is considerable, the path is bad. Contamination is not only possible, but extremely probable. Add to this the fact that quite close to the lines is another stream the water of which is extremely objectionable in quality, so that it is by reason of its closeness to the lines difficult to conceive that its water is not used by the coolies in preference to the more distant supply. The lines, and in fact the whole garden, is situated on land recently cleared of heavy forest. The site is very elevated, and well-sinking seems to be out of the question. A boring, reaching a depth of 100 feet below the surface on which the lines stand, has failed to reach water. Bowel complaints and chest affections are the chief causes of mortality. The hotel system is soon to be started, and will, it is to be hoped, reduce considerably the mortality from bowel complaints.

(2) Rohmaria, Balijan (*inspected on the 27th April 1892*).

Civil Surgeon—

The labour force on this garden has recently been largely reinforced by coolies of a very unsuitable stamp, amongst whom the mortality has been very high. Influenza and its sequelæ—bronchitis and pneumonia—have also caused a very high death rate.

(3) Sessa (*inspected on the 30th March 1892*).

Civil Surgeon—

The most noteworthy point in connection with this garden is the short labour staff. It is also to be feared that the Sessa river is frequently used as a source of drinking water. The water of this river is very foul, draining as it does a series of malaria-producing swamps.

(4) Rowmari (*inspected on the 25th April 1892*).

Civil Surgeon—

There having been a change of management at the beginning of the year, it is now difficult to get at the actual facts of the case. The most potent factor in the causation of the mortality appears to have been *beri-beri*, which has evidently not been fully recognised by the Doctor Babu, who merely classed each case in accordance with the most prominent symptoms at the time of death. Thus, if a *beri-beri* patient was dropsical at the time of his death, the case was returned as dropsy, &c. A fully qualified man has been recently appointed, so that this is not likely to occur again.

(5) Samdang (*inspected on the 9th February 1892*).

Civil Surgeon—

The lines and water-supply are very good, and beyond the fact that the average wages earned is very low, it is difficult to find fault, notwithstanding the fact that the death rate has now been steadily over 7 per cent. for many years. The number of cases of *beri-beri* now on the garden shows a considerable diminution when compared with the numbers to be seen on the occasions of former inspections. The garden has been taken over by the Dum Duma Company, and the medical arrangements have to a certain extent been amalgamated with those of Dum Duma. Thus, the segregation lines at Samdang have been done away with. Suspected batches will henceforth be segregated at Dum Duma. A new manager has been placed in charge since the 14th ultimo.

Deputy Commissioner—

The attention of the present superintendent and manager will be drawn to remarks made by me on inspection in November. A large number of old and acclimatised coolies have been transferred to this garden, and I hope it will not be on the black list after this year.

(6) Mesaijan (*inspected on the 8th February 1892*).

Civil Surgeon—

This garden has for some years been on the black list. In November 1888 there was a disturbance on this garden, which resulted in the loss of a large portion of the labour force. This necessitated the importation of some 700 souls, most of whom were utterly unfit for the purposes for which they were required, and unacclimatised. The death rate was very heavy, but it has steadily diminished in recent years. The situation of the garden is no doubt unhealthy ; it is nothing more than a clearing

in heavy forest jungle to which fresh clearances are year by year added. In November last a committee, consisting of the Deputy Commissioner, the Civil Surgeon, and Mr. R. Walker, a neighbouring planter, assembled at this garden to consider and report upon the high death rate on this garden. That report was duly forwarded to the Assam Government.

Proceedings of the Committee held on the Mesaijan garden on the 26th November 1891.

Present—The Deputy Commissioner, the Civil Surgeon, Mr. R. B. Walker, manager, of Sukariting.

The committee first inspected the block of lines near the bungalow. These lines are situated on a narrow strip of land between the road and the tea, with a deep drain on the road side. The houses are built three and four under one roof, of *ekra* walls with iron roofs on one side of the road and thatched roofs on the other. The lines are free from jungle, and were neat and clean. There are no latrines, but the coolies are made to resort to a certain distance from the lines, any offenders being reported by the chaukidárs. The bulk of the labour force is housed in these lines. There are two wells—one *pucca* which held about five feet of water; the second is under repair; a third well is being abandoned.

The second block of lines, half a mile away, is on high ground, and the arrangements are satisfactory. There is one well.

The hospital was then visited. This is a new building with four wards and a dispensing room. It is in excellent order. There are a number of beds, and the accommodation appears to be ample for any demand that is likely to be made on it. All coolies applying for treatment are put on the sick list, and the committee were assured that none have been rejected and sent back to work. Dr. Norvill now visits twice a week as a rule, and sometimes three times. The native doctor has a hospital assistant's qualification, and is favourably reported on.

The sick were inspected. There were only three serious cases,* in two of which the contracts were cancelled. The sick lists for each month show a marked improvement on those of last year. To-day there are 32 out and 11 indoor patients. This year 6 deaths occurred from cholera, which was epidemic in the district at the time.

* (1) Paralysis on hand.
(2) Heart disease.
(3) *Anchylostomiasis.*

The coolies were then mustered. They appeared to be fairly healthy and well cared for. There were no complaints. Some weakly coolies were picked out, and 7 contracts were cancelled for unfitness. The number of deserters not recovered is 12 to date this year as compared with 19 last year.

The statement of pay and an examination of the pay-book show that the coolies earn a wage much above the average prevailing on neighbouring gardens, the task for plucking being only 6 seers as compared with 7 and 8 elsewhere.

The garden is surrounded on all sides by forest jungle. After the conviction of the assistant manager in 1888, almost all the old coolies deserted *en masse*, and the garden lost all its acclimatised labour, and is now worked by comparatively new coolies, the bulk of whom were recruited in 1888. Another peculiar feature about this garden is that almost all coolies are put under Act I, which is not the general custom. Many of these would on other gardens be treated as non-Act or put under Act XIII. The medical arrangements appear to be excellent, and every attention is given to the health and well-being of the coolies by the present manager (Mr. Cornish), who has carried out great improvements since his appointment. The figures of sickness and mortality referred to above show much better results than last year. But the labour force is being largely recruited from second and third rate coolies of inferior castes and physique, and from districts which do not supply suitable labour. It is among these coolies that the mortality chiefly occurs. The garden has recently been sold, and it is possible that an extension of cultivation on this and neighbouring gardens may render the situation naturally more healthy. Meantime the committee make the following recommendations:

(1) That the garden should be supplied, if possible, with a proper proportion of acclimatised labour.
(2) That only first rate coolies of good castes and physique be imported, if possible, through garden sardárs, and that the recruitment of inferior contractors' coolies from Rewa, the North-Western Provinces, and Ganjam be discontinued.
(3) That all coolies be medically examined before being put under contract as to their fitness to labour.
(4) That the two wells in the first block of lines, which, it is admitted, give a short supply in the dry season, should be deepened and fitted with a pump and cistern, and another well should be dug in the second block of lines to provide for the wants of coolies to be transferred there.
(5) The coolies appear to be housed in too small a space in the first block, and part of the population should be moved to the farther lines.

With reference to the Deputy Commissioner's enquiry as to how far the committee's recommendations have been carried out, the Civil Surgeon writes:

Recommendation (1).—Since the last inspection this garden has been taken over by the Dum Duma Company, and I am informed that a good many labourers have been exchanged between the two gardens, several weakly coolies having been transferred from Mesaijan to Dum Duma, and replaced by robust ones from the latter garden.

Recommendations (2) and (3).—Concerning these I can give no information.

Recommendation (4).—These wells were in progress when I last visited the garden.

Recommendation (5).—Nothing in this direction had been done up to the date of my last visit towards providing a larger space for lines.

(7) BORDEOBAM (*inspected on the 11th March 1892*).

Civil Surgeon—

Water-supply.—Theoretically the lines are supposed to be supplied by a number of Norton's tube-wells. At the time of my inspection (11th March 1892) not one was in working order, and the whole water-supply had to be drawn from the *bhil* noticed by previous inspecting officers.

Hospital.—A woman died of cholera in her own house on the day of my inspection. This should not have occurred.

Anchylostomiasis.—Not recognised on this garden There are several cases, but the doctor Babu insists on calling them anæmia, dysentery, &c.

To bring down the death rate on this garden I would strongly recommend that the hotel system be introduced, and that the treatment of diseases, such as cholera and dysentery, be made a purely hospital matter.

Deputy Commissioner—

The garden is rather remote and inaccessible. A copy of the Civil Surgeon's remarks will be communicated to the manager through the subdivisional officer, who will be asked to report at the end of three months whether effect has been given to them.

(8) TIKHAK COAL MINES (*inspected on the 20th April 1892*).

Civil Surgeon—

A considerable improvement has taken place here during the past year. However, very much remains to be done I consider the chief cause of the high death rate is the absence of any regular hospital, in which diseases like dysentery, &c., can be treated. All such cases have to be removed to Margherita, and it is to be feared that they are not sent there till the case has become a serious one, thereby diminishing the chances of recovery.

Deputy Commissioner—

I have called attention to the large number of accidents due to coal falling in. There have now been 9 deaths from this cause in the mines since 1st January. The mines will be inspected again later on.

(9) LEDO COAL MINES (*inspected on the 19th April 1892*).

Civil Surgeon—

Bowel complaints and chest affections continue to be the chief factors in the production of the heavy death rate at the Ledo mines, situated as it is in one of the valleys lying among the flanking ranges of the Nága Hills. Surrounded on every side by dense forest jungle, the situation is doubtless naturally very unhealthy. A most excellent supply of water has recently been obtained by boring a long shaft into a neighbouring hill. From this pipes convey the water all over the lines. A hospital at Ledo itself is very urgently required. Till this is established, little can be done to reduce the death rate.

(10) DIKHARI (*inspected on the 22nd March 1892*).

Civil Surgeon—

Anchylostomiasis is very prevalent on this garden, and apparently the disease has not been recognised. The coolies recently imported are not of a suitable type. Coolies are sent up by the Calcutta agents as belonging to good working *jats*, but on arrival they are found to be North-Western Chamars, &c. The labour force is still short, being about 1·5 adults per acre. The rate of wages paid is extremely low.

(11) NAHOLIA TIPLING (*inspected on the 5th April 1892*).

Civil Surgeon—

This is a small outlying garden of the Hugrijan tea estate. It is situated in a very remote part of the district in the heart of dense forest jungle. The excessive death rate during the year 1891 may be mainly attributed to influenza and its sequelæ and also to *anchylostomiasis*. A European medical officer has recently arrived from England for this estate, and under his care things are rapidly improving.

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